GACE® Instructional Technology Assessment
Test at a Glance

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See the GACE® Instructional Technology Assessment Study Companion for practice questions and preparation resources.

Assessment Name	Instructional Technology
Grade Level	P–12
Test Code	302
Testing Time	3 hours
Test Duration	3.5 hours
Test Format	Computer delivered
Number of Selected-response Questions	100
Question Format	The test consists of a variety of short-answer questions such as selected-response questions, where you select one answer choice or multiple answer choices (depending on what the question asks for), questions where you enter your answer in a text box, and other types of questions. You can review the possible question types in the *Guide to Taking a GACE Computer-delivered Test*.
Number of Constructed-response Questions	4

About this Assessment

The GACE Instructional Technology assessment is designed to measure the professional knowledge of prospective Instructional Technology Coordinators in the state of Georgia.

The testing time is the amount of time you will have to answer the questions on the test. Test duration includes time for tutorials and directional screens that may be included in the test.

The questions in this assessment assess both basic knowledge across content areas and the ability to apply principles.

The total number of questions that are scored is typically smaller than the total number of questions on the test. Most tests that contain selected-response questions also include embedded pretest questions, which are not used in calculating your score. By including pretest questions in the assessment, ETS is able to analyze actual test-taker performance on proposed new questions and determine whether they should be included in future versions of the test.

Content Specifications

This assessment is organized into content **subareas**. Each subarea is further defined by a set of **objectives** and their **knowledge statements**.

- The objectives broadly define what an entry-level educator in this field in Georgia public schools should know and be able to do.
- The knowledge statements describe in greater detail the knowledge and skills eligible for testing.
- Some tests also include content material at the evidence level. This content serves as descriptors of what each knowledge statement encompasses.

See a breakdown of the subareas and objectives for this assessment on the following pages.

Test Subareas

Subarea	Approx. Percentage of Test
I. Program Development, Implementation, and Evaluation	19%
II. Teaching, Learning, and Assessment	30%
III. Locating, Selecting, and Evaluating Digital Resources	15%
IV. Digital Citizenship	11%
V. Analysis (constructed response only)	25%

Test Objectives

Subarea I: Program Development, Implementation, and Evaluation

Objective 1: Leads the development and implementation of a shared vision for the use of technology

The beginning Instructional Technology Coordinator:

A. Collaborates with stakeholders to identify goals, objectives, and methods for achieving a shared vision and strategic plan for the use of technology

B. Uses multiple sources of data to inform the development of a vision and strategic plan; e.g., student performance data, district demographics, analysis of needs, surveys, infrastructure requirements

C. Aligns the vision and strategic plan with the policies, practices, and goals of governing entities and district, state, and federal technology plans and guidelines

D. Promotes the implementation and ongoing support of the vision and strategic plan among stakeholders

E. Gathers, organizes, and analyzes information to assess progress in achieving the vision and strategic plan

F. Applies knowledge of leadership skills in school and community contexts to facilitate the development and implementation of the vision and strategic plan; e.g., group dynamics, team building, change process

G. Knows alternate means of funding for supporting the implementation of the strategic plan; e.g., grants, donations, corporate sponsorships

H. Designs and implements advocacy strategies for the communication and promotion of instructional technology programs

Objective 2: Develops and evaluates technology-based professional learning programs

The beginning Instructional Technology Coordinator:

A. Knows how to conduct a needs assessment; e.g., identifying a purpose, selecting data collection methods, synthesizing results

B. Uses multiple sources of data to conduct needs assessments; e.g., standards comparisons, student assessment results, inventories

C. Uses the results of needs assessments to inform the content and delivery of technology-related professional learning programs.

D. Develops and implements technology-based professional learning that aligns with district, state, and national professional learning standards; e.g., Georgia Technology Standards for Teachers, International Society for Technology Education Standards (ISTE), Learning Forward

E. Applies adult learning theory in individual and group professional development settings

F. Identifies and addresses barriers to effective professional learning among adult learners; e.g., level of prior knowledge, level of motivation, cyber phobia

G. Monitors and adjusts professional learning in response to learner feedback

H. Uses the results from professional learning programs to evaluate the effectiveness of the programs and to inform future programs; e.g., teacher content knowledge, pedagogical skills, student outcomes

Subarea II: Teaching, Learning, and Assessment

Objective 1: Integrates current and emerging technology into teaching, learning, and assessment

The beginning Instructional Technology Coordinator:

A. Applies district, state, and national standards to instructional and program planning; e.g., Georgia Instructional Technology Standards, ISTE Standards

B. Applies research-based best practices to instructional design, learning experiences, and the use of digital tools and resources

C. Models and facilitates the use of a variety of digital tools and resources; e.g., audio and video components

D. Coaches teachers in and models the design and implementation of authentic learning experiences using digital tools and resources; e.g., researching real-world problems, assuming professional roles, collaborating with others

E. Coaches teachers in and models instructional activities that develop complex cognitive processes; e.g., problem solving, metacognition, critical and creative thinking

F. Models and facilitates the appropriate use of technology to differentiate instruction that meet the needs of learners with diverse learning styles, strengths, needs, and abilities

G. Coaches teachers in and models how to use technology for collaborative teaching and learning strategies; e.g., cooperative learning, interdisciplinary units, co-teaching, distance learning

H. Knows strategies for searching, retrieving, and interacting with information; e.g., Boolean logic, controlled versus natural language, keyword and phrase searching

I. Models and facilitates the use of digital tools and resources to collect, analyze, interpret, and communicate student achievement data

J. Uses digital assessment tools and resources to inform the instructional process; e.g., student response systems, online assessments, computer-based assessments

Objective 2: Creates and supports digital age learning environments

The beginning Instructional Technology Coordinator:

A. Applies the principles and strategies of classroom management appropriate for digital learning settings; e.g., routines and procedures, positive learning environment, arrangement of space

B. Prepares and maintains a variety of digital tools and resources for teacher and student use

C. Provides support to students, faculty, staff, and administrators in the use of digital tools and resources; e.g., basic troubleshooting, instruction on use, mentoring

D. Collaborates with teachers to determine the appropriate extent, level, or type of technology integration for meeting specific learning objectives

E. Develops, models, and facilitates the use of online and blended learning, digital content, and learning networks

F. Facilitates the use of adaptive and assistive technologies; e.g., voice-to-text, assistive listening systems, concept mapping software

G. Provides basic troubleshooting for software and hardware problems common in digital learning environments

H. Assists students and teachers in the use of digital communication and collaboration tools to communicate locally and globally

I. Knows how to use software and hardware, operating systems, and networking components in a variety of settings; e.g., classrooms, laboratories, offices

Objective 3: Engages in professional growth and development

The beginning Instructional Technology Coordinator:

A. Knows the purpose and function of professional organizations relating to instructional technology; e.g., Georgia Educational Technology Consortium (GaETC), Georgia Association for Instructional Technology, International Society for Technology Education, Association for Educational Communications and Technology

B. Accesses information on research, issues, and emerging trends relating to instructional technology and the digital world; e.g., Education Resources Information Center (ERIC), *Educational Technology Research and Development*, *Journal of Research on Technology in Education*, Galileo

C. Interprets and applies research, issues, and emerging trends relating to instructional technology to a variety of educational situations and settings

D. Participates in professional development practices to improve personal productivity and professional practice; e.g., learning communities, peer coaching, conferences and workshops

E. Uses reflective practice to improve the ability to model and facilitate technology-enhanced learning experiences; e.g., portfolios, journals, critical incident analysis

F. Understands the instructional technology coordinator's role as a resource for parents/caregivers, school personnel, and members of the community for information relating to instructional technology

G. Understands terminology, including jargon, relating to digital technology and the digital community; e.g., podcast, pop-up, cloud-based, Web 3.0

Subarea III: Locating, Selecting, and Evaluating Digital Resources

Objective 1: Selects and guides others in the selection of digital resources and systems

The beginning Instructional Technology Coordinator:

A. Knows how to locate digital tools and resources; e.g., commercial vendors, professional journals, online resources

B. Knows major educational technology awards; e.g., Best Educational Software Award (BESSIE), Association for Library Service to Children/Notable Computer Software, American Association of School Librarians, Best Websites for Teaching & Learning

C. Assists faculty and administrators in locating and selecting digital tools and resources for educational use; e.g., instructional software and applications, learning management systems (LMS), online grade books

D. Assists faculty, staff, and administrators in locating and selecting digital tools and resources for data and systems management; e.g., student information system, scheduling, admissions

E. Assists faculty, staff, and administrators in establishing and using communication and collaboration tools; e.g., teacher websites, email networks, smart phone applications

Objective 2: Evaluates and guides others in the evaluation of digital tools, resources, and systems

The beginning Instructional Technology Coordinator:

A. Uses standard review sources for digital tools and resources; e.g., *Children's Technology Review*, *School Library Journal*, content specific professional journals

B. Applies a number of criteria to evaluate digital tools and resources; e.g., accuracy, suitability, usefulness

C. Applies a number of criteria to evaluate digital systems; e.g., functionality, technology specifications, pricing

D. Uses a variety of methods to involve decision makers and end users in the evaluation of resources; e.g., pilot programs, vendor demonstrations, focus groups

E. Uses a variety of tools to gather input from decision makers and end users on the effectiveness of resources; e.g., questionnaires, surveys, anecdotal records

Subarea IV: Digital Citizenship

Objective 1: Models and promotes the equitable, ethical, and legal use of information and technologies

The beginning Instructional Technology Coordinator:

A. Identifies issues and barriers relating to equal access to digital tools, resources, and practices; e.g., digital divide, funding for technology, types of use

B. Models and promotes strategies for achieving equitable access to digital tools, resources, and practices; e.g., race and gender balance, loaner programs, bias-free evaluation criteria

C. Models and promotes strategies for ensuring physical access to digital tools, workstations, and laboratories; e.g., compliance with the Americans with Disabilities Act (ADA), universal design, faculty and staff training

D. Models and promotes appropriate behaviors associated with digital communication; e.g., netiquette, use of emoticons, texting

E. Uses digital communication and collaboration tools to promote diversity, cultural understanding, and global awareness; e.g., voice over Internet protocol (VoIP), social networking, tweeting

Objective 2: Models and promotes safe and responsible use of digital information and technologies

The beginning Instructional Technology Coordinator:

A. Works with administrators to develop and implement policies and procedures relating to the use of technology in educational settings; e.g., acceptable use, bring your own device/tech (BYOD/BYOT)

B. Understands safety and security issues relating to the use of digital technology; e.g., cyber bullying, identify theft, predation

C. Understands health issues relating to the use of digital technology; e.g., eye strain, neck pain, fatigue

D. Understands ethical issues relating to the use of and access to digital technology; e.g., plagiarism, privacy, file sharing

E. Understands laws relating to the use of and access to digital technology; e.g., Children's Internet Protection Act (CIPA), Family Educational Rights and Privacy Act (FERPA), Georgia statutes, copyright

Subarea V: Analysis

Objective 1: Program Development, Implementation, and Evaluation

The beginning Instructional Technology Coordinator:

A. Knows how to use input from stakeholders, data, policies, and laws to plan, implement, and evaluate strategic technology plans

Objective 2: Teaching, Learning, and Assessment

The beginning Instructional Technology Coordinator:

A. Knows how to use a variety of digital tools and resources

B. Knows how to incorporate standards and best practices to instruct students and staff in the operation and use of a variety of digital tools and resources for instructional and managerial applications

Objective 3: Locating, Selecting, and Evaluating Digital Resources

The beginning Instructional Technology Coordinator:

A. Knows how to locate, select, and evaluate a variety of digital resources for educational use and data and systems management

Objective 4: Digital Citizenship

The beginning Instructional Technology Coordinator:

A. Knows strategies for and instructs others in achieving equitable access to digital tools and resources

B. Knows and instructs others in the safe, ethical, and legal use of digital tools and resources