



**VA
ABTEL
Monthly Meeting**

Monday March 4, 2024@9AM

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The Praxis Program



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On Today's Agenda

I. Overview

I. Background on ETS

II. Praxis Tests

III. Testing Development Process

IV. Standard Setting Study Process

V. Adoption Process

II. Praxis Technology and Engineering Education 5053 & Family and Consumer Sciences 5123

I. Test Summary Changes

II. Study Companion/Test At A Glance Details

III. Multi-State Study Information

III. Open Discussion on Test Appropriateness and Score Setting

IV. Q&A

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The background of the slide is a photograph of a modern, multi-story building with a prominent glass facade and a curved architectural element. The entire image is overlaid with a semi-transparent red filter. The word "OVERVIEW" is centered in the middle of the slide in a large, white, bold, sans-serif font.

OVERVIEW

BACKGROUND ON ETS

- Non-profit organization, founded in 1947; combined ACE, Carnegie Foundation and College Entrance Examination Board
- Mission: advance quality and equity in education for all people worldwide
- ETS develops, administers, and scores
 - 50+million assessments in
 - 180 countries at over
 - 9,000 locations worldwide



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THE PRAXIS PROGRAM



Supporter of educators on their career journey

Provider of tools that allow teaching professionals to succeed in their careers

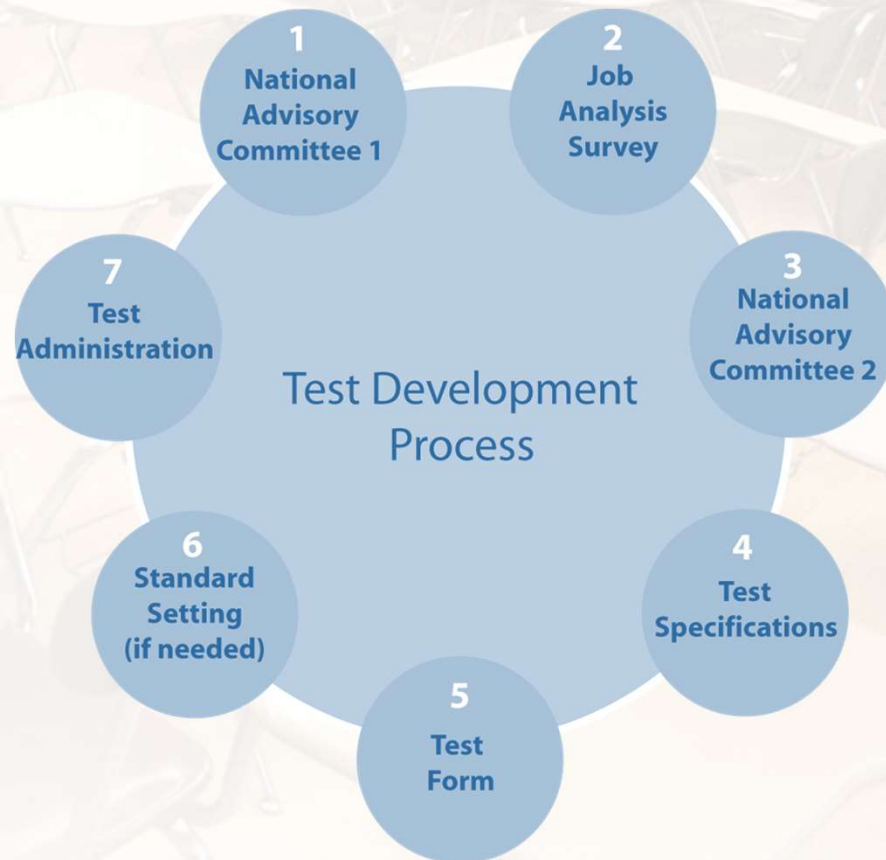
Partner in solving your most pressing educator shortages

WHAT IS PRAXIS®?

- *Praxis* is a battery of tests used by 40+ states and territories as one of a number of requirements to be met for eligibility for an initial teaching license, which is granted by the state or territory
- *Praxis*® Core Academic Skills for Educators (Core) is used for admission to an EPP, to meet licensure requirements, or serve as a diagnostic test for EPPs
- 90+ subject-area tests answerable to states' licensure areas



THE PRAXIS SERIES TEST DEVELOPMENT PROCESS



STANDARD SETTING PROCESS

- Practitioner panel
- Training provided
- Practitioners' judgments about content relevance and recommended passing score collected
- Results are reported to the state

STATE ADOPTION PROCESS



Test reviews



Study Report reviewed



Available data reviewed



Department/Agency makes recommendation to the State Board of Education/Professional Standards Board



Board approves use of test and sets passing score



Department/Agency notifies IHEs/EPPs

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TECHNOLOGY AND ENGINEERING EDUCATION 5053

5053 TEST SUMMARY CHANGES

Standards:

- International Technology and Engineering Educators Association, Standards for Technological Literacy 2020

Overall Design Changes:

- Content categories for the test were reduced. This was done by combining the content in Categories III and IV from 5051 to be one Category on 5053.
- Reduction in the knowledge and skills of similar content by grouping content being assessed and removing content that is no longer a focus for a beginning educator.
- Reduced emphasis on Transportation and Logistics and increased emphasis on Computation, Automation, Robotics, and Evolving Technologies.
- Weightings were redistributed.

5053 TEST SUMMARY CHANGES

Weightings:

Category %	5053 Technology & Engineering Education	Category %	5051 Technology Education
25	I. Fundamentals of Technology and Engineering	15	I. Technology and Society
21	II. Design and Application of Products and Systems	20	II. Technological Design and Problem-Solving
16	III. Technology Contexts 1: Energy, Materials, and the Built Environment	15	III. Energy, Power, and Transportation
16	IV. Technology Contexts 2: Information, Computation, and Technological Application	15	IV. Information and Communication Technologies
22	V. Pedagogy and Professional Responsibilities	15	V. Manufacturing and Construction Technologies
		20	VI. Pedagogical and Professional Studies

5053 TEST SUMMARY CHANGES

Time:

The amount of time to take the test remains at two hours

The Assessment:

The total number of questions remains at 120 selected response-type questions

Organizations Involved in the Redesign Work:

International Technology and Engineering Educators Association (ITEEA)

International Society of Technology in Education (ISTE)

5053 Test-at-a-Glance

Step 1: Learn About Your Test

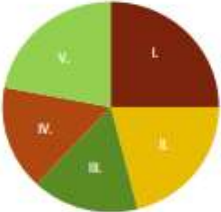
1. Learn About Your Test

Learn about the specific test you will be taking

Technology and Engineering Education (5053)

This advance copy of the Technology and Engineering Education Test at a Glance is a preliminary document. A final version of the document is scheduled to be published on the *Praxis*® website as the Technology and Engineering Education Study Companion in July 2024.

Test at a Glance

Test Name	Technology and Engineering Education		
Test Code	5053		
Time	120 minutes		
Number of Questions	120 selected response questions		
Format	The test consists of a variety of selected-response questions, where you select one or more answer choices; questions where you enter your answer in a text box; and other types of questions. You can review the possible question types in Understanding Question Types.		
Test Delivery	Computer Delivered		
	Content Categories	Approximate Number of Questions	Approximate Percentage of Examination
	I. Fundamentals of Technology and Engineering	30	25%
	II. Design and Application of Products and Systems	25	21%
	III. Technology Contexts 1: Energy, Materials, and the Built Environment	19	16%
	IV. Technology Contexts 2: Information, Computation, and Technological	19	16%
	V. Pedagogy and Professional Responsibilities	27	22%

5053 Test-at-a-Glance

Step 1: Learn About Your Test

Content Topics

This list details the topics that may be included on the test. All test questions will cover one or more of these topics.

I. Fundamentals of Technology and Engineering

A. Core Concepts and Characteristics

- 1 Knows technological and engineering systems as interrelated components (e.g., inputs, processes, outputs, and feedback) that are designed collectively to achieve desired goals
- 2 Knows technology and engineering resources (or inputs), including tools and machines, materials, capital, knowledge, energy, time, and people
- 3 Understands the development of criteria, constraints, and opportunities during the design process and how these factors affect solutions
- 4 Understands trade-offs encompass a choice or exchange of one quality over another and how such choices are evaluated with respect to their economic, social, political, environmental, and ethical impacts
- 5 Understands optimization as an iterative process or methodology of designing or making a product, process, or system that is functional, efficient, safe, and effective
- 6 Knows controls as the mechanisms or activities that apply information to cause systems to behave in desired ways, and knows how controls are implemented within design

B. Integration of Knowledge and Practices

- 1 Understands and can apply interdisciplinary knowledge (e.g., from STEM and the arts and humanities) to develop technological products that serve a broad range of needs
- 2 Knows the economic, environmental, and social impacts of technological and engineering systems

- 3 Understands how advancements in knowledge, technologies, and practices may impact or enhance the iterative process of innovation

C. Influences, Impacts, and History of Technology

- 1 Understands the influence of culture and society on technological and engineering products/systems as well as the influence of interdisciplinary knowledge on technological development
- 2 Understands the difference between invention and innovation and how significant inventions and innovations were influenced by their historical contexts
- 3 Knows the impact of technology and engineering on the social institutions (e.g., the family, community interaction) and the influence of technological innovation on human history and contemporary society
- 4 Knows the outcomes and effects (e.g., intended/unintended, desirable/undesirable) of technological products/systems on individuals, society, and the environment
- 5 Knows the development, analysis, and evaluation of sustainable technological solutions and how to minimize negative impacts on the environment

II. Design and Application of Products and Systems

A. Design in Technology and Engineering

- 1 Understands design and its core elements and principles as a fundamental human activity
- 2 Understands the development, implementation, and documentation of iterative design processes and the analysis/evaluation of specific design requirements (i.e., criteria and constraints)
- 3 Understands the development of analytical solutions to design problems through modeling, evaluation, and optimization of complex designs

TECHNOLOGY AND ENGINEERING EDUCATION 5053 (MULTI-STATE STUDY INFORMATION)

- Convened in **February 2024** in Princeton, NJ
- Panelists from **10 states**
- Neighboring state participation: **MD and PA**
- **13 Panelists total**
- **Recommended Passing Scores: 65** out of 100 raw score points. 65 represents a score of **157** (score range 100-200 scale).
- Note on 5051:
 - Current test used by 33 states and territories
 - VA's cut score is 159
 - One state's cut score is above VA (RI-166); all others are at or below VA's score (24 @159)

TECHNOLOGY AND ENGINEERING EDUCATION 5051 – CURRENT DATA

Test Name: 5051 Technology Education
Administration Date Range: SEP-2018 to AUG-2023
Test Taker Attempts: Highest Score

Administration Date	ORG Level	Total		
		N	# Passing	Percent Passing
SEP-2018 to AUG-2023	All Test Takers	3325	2904	87.34
SEP-2018 to AUG-2023	VDE - DI	535	474	88.60
SEP-2018 to AUG-2023	VDE - AI	236	207	87.71



TECHNOLOGY AND ENGINEERING EDUCATION 5053 DATA

Table 5

Scores 1 and 2 CSEM Around the Recommended Passing Score (RPS)

Scores	Raw Score Points out of 100	Praxis Scale Score Equivalent
RPS - 2 CSEM	56	144
RPS - 1 CSEM	61	151
RPS	65	157
RPS +1 CSEM	70	164
RPS +2 CSEM	75	171



FAMILY AND CONSUMER SCIENCES 5123

5123 TEST SUMMARY CHANGES

Standards:

- Standards- Family and Consumer Sciences Teacher Standards (NATEFACS) revised in 2018 and the National Association of State Administrators of Family and Consumer Sciences (NASAFACS)

Overall Design:

- Revisions to the categories were made to best align with the national standards and be most reflective of current practice.
- Prioritized and organized the 16 standards into 6 categories.
- Professional Teaching Practices was added and includes the sub-areas, Curriculum and Instruction and Laboratory Management.
- Content was deemed important by the advisory committee members and through the two external surveys of the field at large.

5123 TEST SUMMARY CHANGES

Weightings:

%	5122 Categories	%	5123 Categories
22%	I. Food and Nutrition	17%	I. Family, Career, and Community Interrelationships
12%	II. Housing and Interior Design	21%	II. Wellness, Nutrition, and Food Science
12%	III. Textiles, Fashion, and Apparel	18%	III. Human Development and Interpersonal Relationships
20%	IV. Human Development and Interpersonal Relationships	12%	IV. Housing, Interior Design, Textiles, and Apparel
16%	V. Foundations of Family and Consumer Sciences Education	12%	V. Business Skills Across Career Pathways
18%	VI. Resource Management	20%	VI. Professional Teaching Practices

5123 TEST SUMMARY CHANGES

Time:

Timing of the test has increased from 2 hrs. (120 minutes) to 2 hrs. 10 min (130 minutes)

Number of Test Questions:

Increased from 120 to 130 multiple choice questions

Organizations Involved in the Development:

The National Association of State Administrators of Family and Consumer Sciences (NASAFACS) President participated on the National Advisory Panel (NAC)

5123 Test-at-a-Glance


Step 1: Learn About Your Test

1. Learn About Your Test

Learn about the specific test you will be taking

Family and Consumer Sciences (5123)

This advance copy of the Family and Consumer Sciences Test at a Glance is a preliminary document. A final version of the document is scheduled to be published on the *Praxis*® website as the Family and Consumer Sciences Study Companion in July 2024.

Test at a Glance			
Test Name	Family and Consumer Sciences		
Test Code	5123		
Time	130 minutes		
Number of Questions	130 selected response questions		
Format	The test consists of a variety of selected-response questions, where you select one or more answer choices and other types of questions. You can review the possible question types in Understanding Question Types.		
Test Delivery	Computer Delivered		
	Content Categories	Approximate Number of Questions	Approximate Percentage of Examination
	I. Family, Career, and Community Interrelationships	22	17%
	II. Wellness, Nutrition, and Food Science	27	21%
	III. Human Development and Interpersonal Relationships	23	18%
	IV. Housing, Interior Design, Textiles, and Apparel	16	12%
	V. Business Skills Across Career Pathways	16	12%
	VI. Professional Teaching Practices	26	20%

5123 Test-at-a-Glance

Step 1: Learn About Your Test

Content Topics

This list details the topics that may be included on the test. All test questions will cover one or more of these topics.

I. Family, Career, and Community Interrelationships

A. Career Development through Family and Consumer Sciences

1. Understands how contextual factors within the individual, family, community, and workforce influence career planning
2. Knows employability, job-seeking, and job-keeping skills that are in demand in the labor market
3. Understands how a class/course in family and consumer sciences facilitates career pathway exploration and preparation in aligned occupations, industries, and fields
4. Knows how to integrate FCCLA programs and activities into instructional plans to teach family and consumer sciences standards, facilitate career development, and foster positive youth development
5. Knows how to build community partnerships and stakeholder involvement through civic engagement, public relations, and program marketing that result in a more effective and impactful instructional program

B. Consumer Economics and Family Resources

1. Knows culturally competent financial management principles and practices for managing diverse individual and family resources
2. Understands sustainability trends and issues affecting families and future generations

3. Knows systems of consumer protection that prevent fraudulent, unethical, and deceptive practices affecting families and the national agencies that provide human services

4. Understands how advancements in media and technology influence family and consumer decisions and the effect on quality of life
5. Is familiar with the interrelationships of consumers and economic systems at global, national, and local levels
6. Knows how to assess the influences of values, diverse needs, and goals of individuals, families, and communities in relation to consumer choices

C. Family Science

1. Understands family functioning and its effect on individuals and society
2. Understands the diversity of individuals and families and how to demonstrate cultural competence in supporting individuals, families, and communities
3. Understands individual and contextual factors that impact and influence the well-being of individuals and families
4. Understands teamwork and leadership skills in the family, workplace, and community

II. Wellness, Nutrition, and Food Science

A. Individual and Family Health and Wellness

1. Understands the dimensions of wellness and their interconnectedness
2. Understands individual and family wellness practices that promote overall health, well-being, and resiliency across the life span
3. Is familiar with the influence of global perspectives and local systems on the health and well-being of individuals and families
4. Knows how to facilitate students' reflection of their own well-being across the various dimensions of health (e.g., physical, mental, emotional, spiritual, and social) across the life span

FAMILY AND CONSUMER SCIENCES 5123 (MULTI-STATE STUDY INFORMATION)

- Convened in **December 2023** in Princeton, NJ
- Panelists from **10 states**
- Neighboring state participation: **NC and PA**
- **13 Panelists total**
- **Recommended Passing Scores: 66** out of 100 raw score points. 66 represents a score of **151** (score range 100-200 scale).
- Note on 5122:
 - Current test used by 37 states and territories
 - VA's cut score is 153
 - One state's cut score is above VA (UT-160); all others are at or below VA's score (35 @153)

FAMILY AND CONSUMER SCIENCES 5122 – CURRENT DATA

Test Name: 5122 Family and Consumer Sciences
 Administration Date Range: SEP-2018 to AUG-2023
 Test Taker Attempts: Highest Score

Administration Date	ORG Level	Total		
		N	# Passing	Percent Passing
SEP-2018 to AUG-2023	All Test Takers	4830	4186	86.67
SEP-2018 to AUG-2023	Virginia State Department of Education - DI	687	598	87.05
SEP-2018 to AUG-2023	Virginia State Department of Education - AI	362	310	85.64



FAMILY AND CONSUMER SCIENCES 5123 DATA

Table 5

Scores 1 and 2 CSEM Around the Recommended Passing Score (RPS)

Scores	Raw Score Points out of 110	Praxis Scale Score Equivalent
RPS - 2 CSEM	56	138
RPS - 1 CSEM	61	144
RPS	66	151
RPS +1 CSEM	72	158
RPS +2 CSEM	77	165

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QUESTIONS AND ANSWERS

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THANK YOU!

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