General Education Committee
Minutes

February 13, 2018

Present:	Bernie Quetchenbach	Melinda Tilton
	Jim Barron	Matthew Queen
	Emily Arendt	Cori Day
	Megan Thomas	Tara Haupt (ex-officio)
Absent:	Tien Chih	Tom Regele*
	John Roberts*	Leanne Gilbertson*
	Rebecca Muller	Scott Harris*
	Lance Mouser*	Brenna Beckett (student)*
	*excused	
Guests:	Jennifer Burns	Cortnie Broadus
	Rachael Waller	

Jim Barron called the meeting to order at 2:05 p.m. in the SUB Missouri room.

The minutes of January 23 were accepted as presented.

I. ASSESSMENT UPDATE

At the last Academic Senate meeting, the Senate requested that the GEC review the Praxis test. The Praxis test is administered to education majors as an assessment of the content they have retained. The question to the GEC: Do we exempt education majors from taking the Proficiency Profile test, which we hope to require of all students before they graduate?

Jennifer Burns, Licensure Officer for Educational Theory & Practice, stated that education majors are assessed using a three-pronged approach required by the Office of Public Instruction (see attached). Students must meet a minimum GPA in content area courses; they are assessed in their student teaching course(s); and they are required to take the Praxis test, which they must pay for. Ms. Burns presented a variety of information about the content covered by the Praxis test, which is *almost* all of the content covered by the Gen Ed assessment (the Proficiency Profile). It was noted that ETS created both the Proficiency Profile and the Praxis tests. Ms. Burns stated that the College of Education is asking that only elementary education majors be exempt from the requirement that all students take the Proficiency Profile before graduation.

Cortnie Broadus, Data Research Analyst for Educational Theory & Practice, noted that students may take the Praxis more than once, since the standards for OPI are quite high. She also noted that elementary education majors make up about 48% of the education majors on campus.

It was noted that most, but not all Gen Ed categories are covered by the Praxis test. Notably missing are the arts and humanities, as well as cultural diversity. It was suggested that since the GEC has already reviewed the Proficiency Profile test to pick out specific questions that relate to our Cultural Diversity category, perhaps the same can be done with the Praxis test. Either way, ETS will charge us a fee, but we have funding for this and it must be done.

It was cited that the biggest issue is asking elementary education students to take not one, but two very similar assessment tests. All of our students will have to take the two hours to complete the Proficiency Profile, should the graduation requirement be approved. The Praxis test is ultimately a professional, job-related test, while the Proficiency Profile testing is to increase the quality of the Gen Ed program.

The GEC thanked Ms. Burns, Ms. Broadus, and Dr. Waller for coming to the meeting.

- Motion by Emily Arendt, seconded by Bernie Quetchenbach that the **GEC make no exceptions to the recommended graduation requirement for the Proficiency Profile test.**

It was noted that the co-chairs have confirmed that adding a checkbox to DegreeWorks is certainly workable, it will just take time to implement.

- Motion carried with 1 abstention.

Melinda Tilton announced she will be departing tomorrow for Philadelphia to attend an AAC&U conference on general education assessment.

It was noted that we need to get started very soon on collaborating with the A&SC 111 instructors to work the ETS abbreviated test into their courses. Dr. Barron and Ms. Tilton will meet with them next week.

It has been suggested to the Committee that we do away with our current Gen Ed outcomes and create five to seven outcomes for the entire program, perhaps using the suggested learning outcomes from AAC&U. Then, we generate our own assessment exam and put it in D2L. Students would take it as incoming freshmen and again before they graduate. The data will not be nationally normed. The questions will all directly relate to those five to seven program outcomes, perhaps ten questions for each learning outcome. This process would take a couple years to develop. It was responded that the tests will need to not be identical, and in fact we will need multiple versions of the same question, and the test will need to be validated. It was agreed that we need to change the outcomes but it would be simplest to keep the ETS testing, as they create all the questions for us and grade all the tests for us.

II. ITEM FOR INFORMATION

Item 33.b LIT 230 World Literature Survey. Change course description.

Item 33.b was accepted as presented.

III. DISCUSSION/ACTION ITEMS

A. Gen Ed Core Statement of Purpose Homework/Contest
Five submissions were reviewed. A reminder will go out to ask the rest of the Committee to submit an offering, and discussion will take place at the next meeting.

B. Gen Ed Outcomes Overhaul
Ms. Tilton and Dr. Barron will put together some draft learning outcomes for the entire program for the next meeting.

C. Biennial Review of Gen Ed Courses: Dividing Up the Work
The best approach may be to divide up the reviews by category, and each Committee member gets assigned one category which they are not in. This will eventually be part of our Gen Ed program assessment report to NWCCU.

It was noted that any reviews not completed by the February 28 deadline will get a reminder, and if still not completed, may be informed that the courses will be removed from Gen Ed.

The meeting adjourned at 3:19 p.m.

Respectfully submitted, Rita J. Rabe Meduna.

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Teacher candidates completing an accredited Educator Preparation Provider (EPP) program in Montana must meet the minimum content knowledge requirements described below to be recommended for licensure/endorsement. This policy is the result of ongoing dialogue and consensus between the Montana Office of Public Instruction (OPI) and Montana EPPs. This practice ensures consistency across state programs. Montana Board of Public Education accredited schools must employ teachers with an active Montana license and assign those teachers to teach classes in their endorsed subject area(s).

Montana Assessment of Content Knowledge Verification

Teacher candidates must earn at least 7 points on the Montana Assessment of Content Knowledge prior to recommendation for licensure/endorsement by an accredited Montana EPP. The possible range for the Content Knowledge Score (CKS) is 0-10. Teacher candidates earning fewer than 7 CKS points or who score zero on any of the three rubric components shall not be recommended for licensure/endorsement. For candidates receiving a score of 1* on rubric components 1, 2, or 3, each Montana EPP will conduct a further individualized review of the candidate's content knowledge and teaching skills, based on established policy, to ensure that the candidate merits recommendation for licensure/endorsement.

1. **Assessment of Content Knowledge Coursework GPA**
The range for awarding points is 0-4 and will be calculated as follows:

GPA	*Points*
3.50 – 4.00	4
3.00 – 3.49	3
2.65 – 2.99	2
2.00 – 2.64	1*
Below 2.00	0

2. **Assessment of Content Knowledge Demonstrated During Student Teaching/ Clinical Practice**
The range for awarding points is 0-3 and will be calculated as follows:

Descriptor	*Points*
Knowledge is Advanced	3
Knowledge is Proficient	2
Knowledge is Basic	1*
Knowledge is Insufficient	0

Note: The assessment is completed by a cooperating teacher, college or university supervisor, or faculty member.

3. **Assessment of Content Knowledge on appropriate Praxis Subject Assessments**
The range for awarding points is 0-3 and will be calculated as follows:

Score Range	*Points*
Meets/Exceeds MT score	3
At least 90 % of MT score	2
At least 80 % of MT score	1*
Below 80 % of MT score	0

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Montana Score Ranges for Praxis Subject Assessments

Worksheet to determine the Content Knowledge Score for Montana EPP teacher candidates

AGRICULTURAL EDUCATION (5134)	
Score Range	*Points*
157 - 200	3
141-156	2
125-140	1*
<125	0

ART (5134)	
Score Range	*Points*
158 - 200	3
142-157	2
126-141	1*
<126	0

BIOLOGY (5235)	
Score Range	*Points*
151 - 200	3
136-150	2
121-135	1*
<121	0

BUSINESS EDUCATION (5101)	
Score Range	*Points*
154 - 200	3
139-153	2
123-138	1*
<123	0

CHEMISTRY (5245)	
Score Range	*Points*
148-200	3
133-147	2
118-132	1*
<118	0

EARLY CHILDHOOD EDUCATION (5025)	
Score Range	*Points*
156 - 200	3
140-155	2
125-139	1*
<125	0

EARTH SCIENCE (5571)	
Score Range	*Points*
151 - 200	3
136-150	2
121-135	1*
<121	0

ECONOMICS (5911)	
Score Range	*Points*
150 - 200	3
135-149	2
120-134	1*
<120	0

ELEMENTARY EDUCATION (5018)	
Score Range	*Points*
163 - 200	3
147-162	2
130-146	1*
<130	0

ENGLISH LANGUAGE ARTS (5038)	
Score Range	*Points*
167 - 200	3
150-166	2
134-149	1*
<134	0

FAMILY AND CONSUMER SCIENCES (5641)	
Score Range	*Points*
148 - 200	3
133-147	2
118-132	1*
<118	0

FRENCH (5174)	
Score Range	*Points*
162 - 200	3
146-161	2
130-145	1*
<130	0

GENERAL SCIENCE (5435)	
Score Range	*Points*
152 - 200	3
137 - 151	2
122-136	1*
<122	0

GENERAL SOCIAL STUDIES (5081)	
Score Range	*Points*
155 - 200	3
140 -154	2
124-139	1*
<124	0

GEOGRAPHY (5921)	
Score Range	*Points*
155 - 200	3
140-154	2
124-139	1*
<124	0

GERMAN (5183)	
Score Range	*Points*
163 - 200	3
147-162	2
130-146	1*
<130	0

GOVERNMENT (5931)	
Score Range	*Points*
149 - 200	3
134-148	2
119-133	1*
<119	0

HEALTH AND PHYSICAL EDUCATION (5857)	
Score Range	*Points*
155 - 200	3
140-154	2
124-139	1*
<124	0

HISTORY (5941)	
Score Range	*Points*
146 - 200	3
131-145	2
117-130	1*
<117	0

INDUSTRIAL TRADES AND TECHNOLOGY EDUCATION (5051)	
Score Range	*Points*
154 - 200	3
139-153	2
123-138	1*
<123	0

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LATIN (5601)	
Score Range	*Points*
152 - 200	3
137 - 151	2
122-136	1*
<122	0

LIBRARY MEDIA SPECIALISTS (5311)	
Score Range	*Points*
150-200	3
135 - 149	2
120 - 134	1*
<120	0

MATHEMATICS (5161)	
Score Range	*Points*
160 - 200	3
144 - 159	2
128 - 143	1*
<128	0

MUSIC (5113)	
Score Range	*Points*
152 - 200	3
137-151	2
122-136	1*
<122	0

PHYSICS (5265)	
Score Range	*Points*
135 - 200	3
122-134	2
108-121	1*
<108	0

PSYCHOLOGY (5391)	
Score Range	*Points*
154 - 200	3
139-153	2
123-138	1*
<123	0

SOCIOLOGY (5952)	
Score Range	*Points*
154 - 200	3
139-153	2
123-138	1*
<123	0

SPANISH (5195)	
Score Range	*Points*
168 - 200	3
151-167	2
134-150	1*
<134	0

SPECIAL EDUCATION (5354)	
Score Range	*Points*
159 - 200	3
143-158	2
127-142	1*
<127	0

TEACHING READING (5204)	
Score *Range*	Points
159 - **200**	3
143-158	2
127-142	1*
<127	0

THEATRE (5641)	
Score Range	*Points*
148 - 200	3
133-147	2
118-132	1*
<118	0

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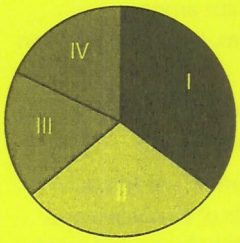
1. Learn About Your Test

Learn about the specific test you will be taking

Elementary Education: Content Knowledge (5018)

Test at a Glance	
Test Name	Elementary Education: Content Knowledge
Test Code	5018
Time	150 minutes
Number of Questions	140
Format	Selected-response and numeric-entry questions, scientific calculator provided
Test Delivery	Computer delivered



Content Categories	Approximate Number of Questions	Approximate Percentage of Examination
I. Reading and Language Arts	49	35%
II. Mathematics	41	29%
III. Social Studies	25	18%
IV. Science	25	18%

About This Test

The Elementary Education: Content Knowledge test is designed for candidates who are preparing to enter the field of elementary education. The test measures the knowledge, skills, and abilities judged by a national advisory committee and a survey of education experts to be necessary for safe and effective practice. Test takers are typically completing an undergraduate degree program in elementary education or have a degree in a content area and are seeking an additional endorsement.

The 140 test questions focus on knowledge in four major content areas: reading and language arts, mathematics, social studies, and science. Test takers are asked to show their knowledge of the topics covered on the test in multiple ways using various types of responses: conceptual understanding, procedural awareness, interpretation, integration, and application. The test is aligned with the Common Core State Standards for English Language Arts and Mathematics, as well as with the content standards for each subject area.

An on-screen scientific calculator is provided for the computer-delivered test. Please consult the **Praxis Calculator Use** web page for further information. You are expected to know how and when to use the scientific calculator since it will be helpful for some questions. You are expected to become familiar with its functionality before taking the test. To practice using the calculator, **download the 30-day trial version and view tutorials on how to use it**. The calculator may be used to perform calculations, such as exponents, roots, and percents.

This test may contain some questions that will not count toward your score.

Test Specifications

Test specifications in this chapter describe the knowledge and skills measured by the test. Study topics to help you prepare to answer test questions can be found in page 36.

I. Reading and Language Arts

A. Reading: Foundational Skills

1. Understands the role of phonological awareness in literacy development
   a. Explains the importance of phonological awareness as a foundational skill for literacy development
   b. Identifies and provides examples of phonemes, syllables, onsets, and rimes
   c. Identifies and provides examples of blending, segmenting, substituting, and deleting phonemes, syllables, onsets, rimes
2. Understands the role of phonics and word analysis in literacy development
   a. Explains the importance of phonics and word analysis in literacy development
   b. Distinguishes among common letter-sound correspondences and spelling conventions
   c. Distinguishes high-frequency sight words from decodable words appropriate for particular grades
   d. Identifies roots and affixes to decode unfamiliar words
   e. Recognizes various stages of language acquisition (e.g., WIDA taxonomy)
   f. Delineates common phonics and word-recognition approaches for ELLs (pedagogy)
   g. Differentiates syllabication patterns (e.g., open, closed, CVe)
3. Understands the role of fluency (e.g., rate, accuracy) in literacy development
   a. Defines fluency and related terms (e.g., accuracy, rate, prosody)
   b. Explains the impact of fluency on comprehension

B. Reading: Literature and Informational Text

1. Understands how to use key ideas and details to comprehend literature and informational text
   a. Identifies the key details, moral, and/or theme of a literary text, citing specific textual evidence
   b. Identifies the key details and/or central idea of an informational text, citing specific textual evidence
   c. Makes inferences from a text and supports them with appropriate evidence
   d. Summarizes information from a text
   e. Analyzes the characters, setting, and plot of a literary text
   f. Analyzes the relationships among individuals, events, ideas, and concepts in an informational text
2. Understands how features and structures of text across genres affect comprehension
   a. Identifies structural elements of literature across genres (e.g., casts of characters and stage directions in drama, rhyme and meter in poetry)
   b. Uses text features (e.g., headings, sidebars, hyperlinks) to locate information in a print or digital informational text
   c. Identifies organizational structures of informational text (e.g., cause/effect, problem/solution)
   d. Identifies how structural elements contribute to the development of a literary text as a whole
3. Understands the concept of point of view using evidence from the text
   a. Identifies author's point of view in various genres and supports conclusions with evidence from the text
   b. Compares multiple accounts of the same event or topic to identify similarities or differences in point of view
   c. Identifies how point of view impacts the overall structure of a literary or informational text

4. Understands how to integrate and compare written, visual, and oral information from texts and multimedia sources
   a. Explains how visual and oral elements enhance the meaning and effect of a literary text (e.g., picture book, graphic novel, multimedia presentation of a folktale)
   b. Compares the written version of a literary text with an oral, staged, or filmed version
   c. Compares two or more literary texts that address the same theme
   d. Compares two or more informational texts that address the same topic
   e. Interprets visual and multimedia elements in literary and informational texts
   f. Evaluates key claims in a text and supports them with reasons and evidence from the text
5. Knows the role of text complexity in reading development
   a. Explains the three factors (i.e., quantitative, qualitative, and reader and task) that measure text complexity
   b. Identifies features of text-leveling systems

C. Writing

1. Understands the characteristics of common types of writing
   a. Distinguishes among common types of writing (e.g., opinion/argument, informative/explanatory, narrative)
   b. Identifies the purpose, key components, and subgenres (e.g., speeches, advertisements, narrative poems) of each common type of writing
   c. Evaluates the effectiveness of writing samples of each type
2. Understands the characteristics of effective writing
   a. Evaluates the appropriateness of a particular piece of writing for a specific task, purpose, and audience
   b. Evaluates the development, organization, or style of a piece of writing
   c. Identifies appropriate revisions to strengthen a piece of writing
   d. Writes clearly and coherently
   e. Identifies the interrelationships among planning, revising, and editing in the process of writing
3. Knows the developmental stages of writing (e.g., picture, scribble)
   a. Identifies the grade-appropriate continuum of student writing
4. Knows the importance of digital tools for producing and publishing writing and for interacting with others
   a. Identifies the characteristics and purposes of a variety of digital tools for producing and publishing writing
   b. Identifies the purposes of a variety of digital tools for interacting with others
5. Knows the research process
   a. Identifies the steps in the research process
   b. Distinguishes between primary and secondary sources and their uses
   c. Distinguishes between reliable and unreliable sources
   d. Distinguishes between paraphrasing and plagiarizing
   e. Knows how to locate credible print and digital sources, locate information within the sources, and cite the sources

D. Language

1. Knows the conventions of standard English grammar, usage, mechanics, and spelling when writing, speaking, reading, and listening
   a. Explains the function of different parts of speech
   b. Corrects errors in usage, mechanics, and spelling
   c. Identifies examples of different sentence types (e.g., simple, compound, compound-complex)
   d. Identify how varieties of English (e.g., dialects, registers) used in stories, dramas, or poems support the overall meaning
2. Understands how to determine the meaning of words and phrases
   a. Determines the literal meaning of unknown words and phrases from context, syntax, and/or knowledge of roots and affixes
   b. Identifies types of figurative language

c. Interprets figurative language

d. Analyzes the relationship between word choice and tone in a text

3. Understands characteristics of conversational, academic, and domain-specific language

a. Differentiates among the three tiers of vocabulary

b. Identifies relevant features of language such as word choice, order, and punctuation

E. Speaking and Listening

1. Knows the characteristics of effective collaboration to promote comprehension

a. Identifies techniques to communicate for a variety of purposes with diverse partners

b. Identifies the characteristics of active listening

2. Knows the characteristics of engaging oral presentations

a. Identifies elements of engaging oral presentations (e.g., volume, articulation, awareness of audience)

II. Mathematics

A. Numbers and Operations

1. Understands the place value system

a. Writes numbers using base-10 numerals, number names, and expanded form

b. Composes and decomposes multi-digit numbers

c. Given a digit, identifies the place the digit is in and its value in that place

d. Recognizes that a digit in one place represents ten times what it represents in the place to its right and one-tenth what it represents in the place to its left, and extend this recognition to several place to the right or left

e. Uses whole-number exponents to denote powers of 10

f. Rounds multi-digit numbers to any place value

2. Understands operations and properties of rational numbers

a. Solves multistep mathematical and real-world problems using addition, subtraction, multiplication, and division of rational numbers and shows knowledge of how to classify problem situations, inverse operations, remainders, concepts of zero, absolute value, and opposites

b. Understands various strategies and algorithms used to perform operations on rational numbers

c. Recognizes concepts of rational numbers and their operations, including those related to unit fractions, composition and decomposition of fractions, comparing fractions

d. Solves problems using the order of operations, including problems involving whole-number exponents

e. Identifies properties of operations (e.g., commutative, associative, distributive) and uses them to solve problems

f. Represents rational numbers and their operations in different ways, using drawings, models, number lines, arrays

g. Compares, classifies, and orders rational numbers

h. Converts between fractions, decimals, and percents

3. Understands proportional relationships and percents

a. Applies the concepts of ratios and unit rates to describe relationships between two quantities

b. Understands percent as a rate per 100

c. Solves unit-rate problems

d. Uses proportional relationships to solve ratio and percent problems

4. Knows how to use basic concepts of number theory

a. Identifies and uses prime and composite numbers

b. Finds factors and multiples of numbers

5. Knows a variety of strategies to determine reasonableness of results
   a. Recognizes the reasonableness of results within the context of a given problem
   b. Uses mental math, estimation, and rounding strategies to solve problems and determine reasonableness of results

B. Algebraic Thinking

1. Knows how to evaluate and manipulate algebraic expressions, equations, and formulas
   a. Differentiates between algebraic expressions and equations
   b. Adds and subtracts linear algebraic expressions
   c. Uses the distributive property to generate equivalent linear algebraic expressions
   d. Evaluates simple algebraic expressions (i.e., one variable, binomial) for given values of variables
   e. Uses mathematical terms to identify parts of expressions and describe expressions
   f. Translates between verbal statements and algebraic expressions or equations (e.g., the phrase "the number of cookies Joe has is equal to twice the number of cookies Sue has" can be represented by the equation $j = 2s$)
   g. Uses formulas to determine unknown quantities
   h. Differentiates between dependent and independent variables in formulas
2. Understands the meanings of the solutions to linear equations and inequalities
   a. Solves multistep one-variable linear equations and inequalities
   b. Interprets solutions of multistep one-variable linear equations and inequalities (e.g., graphs the solution on a number line, states constraints on a situation)
   c. Uses linear relationships represented by equations, tables, and graphs to solve problems
3. Knows how to recognize and represent patterns (e.g., number, shape)
   a. Identifies, extends, describes, or generates number and shape patterns
   b. Makes conjectures, predictions, or generalizations based on patterns
   c. Identifies relationships between the corresponding terms of two numerical patterns (e.g., find a rule for a function table)

C. Geometry and Measurement

1. Understands how to classify one-, two-, and three-dimensional figures
   a. Uses definitions to identify lines, rays, line segments, parallel lines, and perpendicular lines
   b. Classifies angles based on their measure
   c. Composes and decomposes two- and three-dimensional shapes
   d. Uses attributes to classify or draw polygons and solids
2. Knows how to solve problems involving perimeter, area, surface area, and volume
   a. Represents three-dimensional figures with nets
   b. Use nets that are made of rectangles and triangles to determine the surface area of three-dimensional figures
   c. Finds the area and perimeter of polygons, including those with fractional side lengths
   d. Finds the volume and surface area of right rectangular prisms, including those with fractional edge lengths
   e. Determines how changes to dimensions change area and volume
3. Knows the components of the coordinate plane and how to graph ordered pairs on the plane
   a. Identifies the x-axis, the y-axis, the origin, and the four quadrants in the coordinate plane
   b. Solves problems by plotting points and drawing polygons in the coordinate plane
4. Knows how to solve problems involving measurement
   a. Solves problems involving elapsed time, money, length, volume, and mass
   b. Measures and compares lengths of objects using standard tools
   c. Knows relative sizes of United States customary units and metric units
   d. Converts units within both the United States customary system and the metric system

D. Data, Statistics, and Probability

1. Is familiar with basic statistical concepts
   a. Identifies statistical questions
   b. Solves problems involving measures of center (mean, median, mode) and range
   c. Recognizes which measure of center best describes a set of data
   d. Determines how changes in data affect measures of center or range
   e. Describes a set of data (e.g., overall patterns, outliers)
2. Knows how to represent and interpret data presented in various forms
   a. Interprets various displays of data (e.g., box plots, histograms, scatterplots)
   b. Identifies, constructs, and completes graphs that correctly represent given data (e.g., circle graphs, bar graphs, line graphs, histograms, scatterplots, double bar graphs, double line graphs, box plots, and line plots/dot plots)
   c. Chooses appropriate graphs to display data
3. Is familiar with how to interpret the probability of events
   a. Interprets probabilities relative to likelihood of occurrence

III. Social Studies

A. Geography, Anthropology, and Sociology

1. Knows world and regional geography
   a. Is familiar with spatial terms and can identify spatial patterns of people, places, and environments
   b. Identifies the characteristics of places and regions
   c. Locates major physical features of geography (e.g., mountain ranges, bodies of water)
   d. Locates major political features of geography (e.g., continents, countries, states, cities)
   e. Demonstrates basic geographic literacy (e.g., uses and interpretations of different types of maps, understanding of the concepts of absolute and relative location, identification of cardinal and intermediate directions)
2. Understands the interaction of physical and human systems
   a. Demonstrates knowledge of how humans change the environment
   b. Demonstrates knowledge of how the environment affects human activities
   c. Understands the importance of natural and human resources
3. Knows the uses of geography
   a. Applies geography to interpret the past and the present and to plan for the future
4. Knows how people of different backgrounds interact with the their environment, self, family, neighborhood, and organizations.
   a. Demonstrates knowledge of how human behavior is influenced by society and by society's groups, institutions, and organizations.

B. World History

1. Knows the major contributions of classical civilizations such as Egypt, Greece, and Rome
   a. Demonstrates knowledge of how modern civilizations reflect, mirror, and learn from the contributions of ancient civilizations
2. Understands twentieth-century developments and transformations in world history
   a. Demonstrates knowledge of the causes and effects of the First and Second World Wars and the Cold War
   b. Demonstrates knowledge of technological developments (e.g., transportation, communication, tools)
   c. Demonstrates knowledge of the causes and effects of globalization
3. Understands the role of cross-cultural comparisons in world history instruction
   a. Demonstrates knowledge of various psychological, sociological, and cultural factors needed to assess the similarities and/or diversities in two or more different cultures or societies

C. United States History

1. Knows about the European exploration and colonization of North America and growth and expansion of the United States
   a. Demonstrates knowledge of Native American peoples and cultures
   b. Demonstrates knowledge of the reasons for the colonization of North America and the development of the thirteen colonies
   c. Is familiar with the interactions between Native American groups, colonists, and European powers
2. Knows about the American Revolution and the founding of the United States
   a. Understands the causes and effects of the American Revolution
   b. Identifies key individuals and events during the American Revolution
   c. Demonstrates knowledge of the challenges faced by the early republic (e.g., creation of a democratic government)
3. Knows about the major events and developments in United States history from founding to present
   a. Demonstrates knowledge of the causes and effects of the territorial expansion of the United States (e.g., concept of Manifest Destiny; Louisiana Purchase; impact on Native Americans; role of technological, political, and economic developments)
   b. Understands the causes and effects of the Civil War (e.g., growth of sectionalism, the abolition movement, the Underground Railroad, the reasons for the succession of the Confederate States, the role of Abraham Lincoln, the purposes and challenges of Reconstruction)
   c. Demonstrates knowledge of the causes and effects of industrialization, urbanization, and immigration
   d. Is familiar with major social and cultural developments throughout United States history
4. Knows about twentieth-century developments and transformations in the United States
   a. Demonstrates knowledge of the causes and effects of the Great Depression (e.g., New Deal legislation)
   b. Demonstrates knowledge of the causes and effects of the First and Second World Wars and the Cold War
   c. Demonstrates knowledge of major economic developments (e.g., assembly line, mass production,) and the influence of technological developments
5. Understands connections between the causes and effects of events
   a. Demonstrates the ability to draw connections between the causes and effects of significant events throughout United States history

D. Government, Citizenship, and Democracy

1. Understands the nature, purpose, and forms of government
   a. Is familiar with the founding principles of the United States government (e.g., republicanism, separation of powers, checks and balances, popular sovereignty)
   b. Demonstrates knowledge of federalism (e.g., division of power between the national and state governments)
   c. Demonstrates knowledge of the powers of the three branches of the federal government and the interactions among them
   d. Is familiar with basic characteristics of different political systems
2. Knows key documents and speeches in the history of the United States
   a. Is familiar with the purpose and contents of the Declaration of Independence
   b. Is familiar with the Articles of Confederation
   c. Demonstrates knowledge of the structure of government outlined in the United States Constitution
   d. Demonstrates knowledge of the rights and protections guaranteed to United States citizens by the Constitution
   e. Is familiar with key documents and speeches (e.g., Gettysburg Address)

3. Knows the rights and responsibilities of citizenship in a democracy
   a. Demonstrates knowledge of civic participation (e.g., community service, membership in civic organizations)
   b. Demonstrates knowledge of the rights and responsibilities of citizens in the United States (e.g. voting, paying taxes, freedom of speech)

E. Economics

1. Knows key terms and basic concepts of economics
   a. Demonstrates knowledge of supply and demand
   b. Is familiar with concepts of scarcity, choice, and opportunity cost
   c. Demonstrates knowledge of the role of money and resources in economic decision making
2. Understands how economics affects population, resources, and technology
   a. Demonstrates an understanding of how people use resources to generate wealth and enhance their lives
   b. Demonstrates an understanding of how economics drives and is driven by technological innovations
3. Understands the government's role in economics and the impact of economics on government
   a. Demonstrates knowledge of the federal government's role in regulating the economy
   b. Demonstrates knowledge of taxing and spending

F. Social Studies as Inquiry and Social Studies Processes

1. Understands social studies as inquiry
   a. Demonstrates knowledge of questioning, gathering data, and drawing reasonable conclusions
2. Understands how to use resource and research material in social studies
   a. Understands how to evaluate the appropriate uses of a variety of resources
   b. Identifies primary and secondary sources and demonstrates knowledge of the uses of each
   c. Demonstrates knowledge of fact and opinion and knows the uses of each in social studies
3. Understands process skills in social studies
   a. Understands how to interpret different types of information
   b. Evaluates relationships among different variables
   c. Demonstrates ability to draw conclusions using tools of the field

IV. Science

A. Earth and Space Science

1. Understands basic physical and historical geology
   a. Identify Earth's basic structure (e.g., mantle, core, geographical features such as mountains, magnetic field)
   b. Identify and describe types and characteristics of rocks and minerals
   c. Recognize processes involved in erosion, weathering, and deposition of Earth's surface materials
   d. Recognize Earth's internal processes including impact of plate tectonic theory (e.g., volcanoes, earthquakes)
   e. Identify key aspects of the water cycle (e.g., evaporation, condensation, precipitation, runoff)
   f. Recognize important events in Earth's geologic history and the importance of the rock record and fossils
2. Is familiar with the structure and processes of Earth's hydrosphere
   a. Identify the geographic location of Earth's oceans and seas and the processes involved with tides and waves
   b. Identify characteristics of lakes, streams rivers, polar ice, icebergs, glaciers, and groundwater
   c. Identify the basic characteristics of Earth's atmosphere
   d. Recognize the basic concepts of weather (e.g., clouds, precipitation, hurricanes)
   e. Identify factors that affect climate and seasons (e.g., climate zones, proximity to mountains and oceans)

3. Is familiar with astronomy
   a. Identify the major features of the solar system, including the Sun, the planets, moons, asteroids, and comets
   b. Recognize the interactions of the Earth-Moon-Sun system (e.g., phases of the Moon, eclipses, seasons, tides
   c. Recognize the major features of the universe a (e.g., galaxies, stars, black holes)

B. Life Sciences

1. Understands the basic structure and function of cells and levels of organization in living things
   a. Identify the structure and function of cell organelles (e.g., nucleus, cell membrane)
   b. Recognize basic cell processes such as cell division and photosynthesis
   c. Identify the levels of organization (cells, tissues, organs, organ systems)
2. Understands basic genetics and evolution
   a. Apply basic genetics (e.g., relationship between genes and traits)
   b. Recognize the basic structure and function of DNA and relationship to heredity
   c. Recognize common human genetic disorders
   d. Identify processes by which species change over time, including natural selection, mutation, evolution
3. Knows the hierarchical classification scheme and the characteristics of the major groups of organisms
   a. Identify elements of classification schemes (e.g., kingdom, genus, species)
   b. Identify major characteristics of common types of organisms (e.g. amphibians, reptiles, mammals, plants)
4. Knows the major structures and functions of plant organs and systems
   a. Identify the basic structure and function of leaves, roots, and stems
   b. Recognize key aspects of asexual and sexual reproduction, development, and growth
   c. Recognize the uptake and transport of nutrients and water
5. Knows the basic anatomy and physiology of animals, including human body systems
   a. Identify examples of exchange with the environment involving the respiratory, excretory, and digestive systems
   b. Recognize key aspects of internal transport and exchange in terms of the circulatory system
   c. Recognize key aspects of support and movement in terms of the skeletal and muscular systems
   d. Identify key aspects of reproduction and development
   e. Recognize the function of immune systems
   f. Identify the functions of immune systems, nervous systems, and endocrine systems
   g. Recognize the importance of homeostasis
6. Knows key aspects of ecology
   a. Recognize key relationships between and among species such as territoriality, predator-prey, and parasitism
   b. Recognize key aspects of ecosystems (e.g., biomes, energy levels, food webs, effect of disturbances)

C. Physical Sciences

1. Knows the basic structure and properties of matter
   a. Identify basic properties of solids, liquids and gases (e.g., structure, density, conductivity, solubility)
   b. Identify and distinguish between elements, atoms, compounds, molecules, and mixtures
   c. Describe the atomic model, including electrons, protons, neutrons, atomic number and atomic mass
   d. Is familiar with the periodic table of the elements, its symbols and the information it provides
2. Knows the basic relationships between energy and matter
   a. Recognize that energy and matter is conserved in various situations
   b. Recognize how various forms of kinetic and potential energy can be transformed from one form to another
   c. Identify the differences between chemical and physical properties/changes

d. Describe methods of heat transfer (convection, radiation, conduction)

e. Describe how the states of matter undergo phase changes and the energy changes involved

3. Understands basic chemical reactions

a. Identify the difference between covalent and ionic bonding

b. Interpret simple chemical formulas

c. Recognize that chemical reactions involve energy changes

d. Identify chemical and physical properties of acids and bases and the pH scale

e. Recognize common types of chemical reactions such as neutralization, oxidation, and combustion

4. Understands basic concepts in mechanics

a. Describe motion in terms of distance, speed, velocity, and acceleration

b. Describe the effect of forces on objects (e.g., collisions, pendulums, friction)

c. Recognize the effect of gravity and distinguish between mass and weight

d. Recognize forces and physical properties involving fluids that determine whether objects will sink or float

5. Understands basic concepts in electricity, magnetism, waves, and optics

a. Describe basic characteristics of magnets (e.g., magnetic poles, attraction, repulsion)

b. Recognize electrostatic attraction and repulsion

c. Describe electricity in terms of the flow of electrons and identify voltage sources (batteries and generators)

d. Describe the basic phenomena involving light (reflection, rainbows, mirrors, prisms)

e. Describe basic characteristics of sound (pitch, loudness, the Doppler effect)

D. Impact of Science and Technology on Society

1. Knows the impact of science and technology on the environment and society

a. Recognize the impact of air and water pollution, greenhouse gases

b. Recognize the impact of production and disposal of consumer products

c. Recognize the benefits of conservation and recycling

d. Identify renewable and nonrenewable energy resources

e. Identify the pros and cons of power generation based on various sources (e.g., fossil, nuclear, water, wind, solar, biomass, geothermal)

2. Is familiar with applications of science and technology in daily life and public health

a. Identify applications of chemical and physical principles related to common consumer products (e.g., acid-base properties of orange juice, applications of physics in devices such as lenses)

b. Identify common agricultural practices (e.g., genetically modified crops, use of herbicides and insecticides)

c. Recognize the role of nutrition, disease, and medicine (e.g., food preservation, vitamins, vaccines, viruses)

d. Recognize applications of medical technologies (e.g., MRIs, X-rays, radiation therapy)

E. Science as Inquiry and Science Processes

1. Understands the basic elements of scientific inquiry and how they are used

a. Identify hypotheses, theories, models, and laws, and their role in scientific inquiry

b. Explain the role of the elements of experimental design, including independent and dependent variables, controls, sources of error, and drawing conclusions

c. Recognize that scientific knowledge is subject to change, consistent with evidence, based on reproducible evidence and includes unifying concepts and processes (e.g., systems, models, constancy and change, equilibrium, form and function)

d. Recognize how key concepts developed over time and identify the contribution of key historical figures (e.g., Newton's laws, Marie Curie's work with radioactivity, Mendel's development of basic genetics)

2. Understands the common methods and tools used to gather and present reliable data
   a. Identify common units of measurement (e.g., meter, gram, liter)
   b. Explain the appropriate use of common measurement tools (e.g., thermometers, barometers, balances)
   c. Organize and present data (e.g., graphs, tables, charts, maps)
3. Knows how to interpret and draw conclusions from data presented in tables, graphs, charts, and maps
   a. Identify patterns and significant points in data
   b. Draw conclusions and make predictions based on presented data
   c. Recognize relationships between variables
   d. Recognize the effect of error on data and conclusions
4. Understands procedures for safe and correct use of laboratory materials and equipment
   a. Recognize safe and appropriate methods to prepare materials for classroom use (activities and demonstrations)
   b. Recognize when and how to use standard equipment in the laboratory (e.g., microscopes, graduated cylinders)
   c. Explain the use of standard safety equipment (e.g., eyewash stations, safety showers)
   d. Identify appropriate student apparel and behavior (e.g., goggles, clothing, no eating in lab)
   e. Recognize emergency procedures for mishaps (e.g., fires, chemical spills, injuries) and evacuation procedures

Praxis Test 5018-Elementary Education: Content Knowledge																									
	Category 1: Reading /Language Arts (Pts Possible 40-42)					Category 2: Mathematics (Pts Possible 36)					Category 3: Social Studies (Pts Possible 20-21)					Category 4: Science (Pts Possible 21)					Total (Pts Possible 100-200)				
	N and Average for Institution		Average % Correct			N and Average for Institution		Average % Correct			N and Average for Institution		Average % Correct			N and Average for Institution		Average % Correct			N	Passed	COE Average	National Average	Average Performance Range
Year	N	Average	National	State	Institution	N	Average	National	State	Institution	N	Average	National	State	Institution	N	Average	National	State	Institution					
2014-2015	120	29.09				120	25.28				120	13.13				120	13.56				120	44.17%	161.23	165.40	154-179
2015-2016	109	28.74	70.80%	73.10%	70.12%	109	24.72	70.66%	74.67%	69.44%	109	11.88	58.25%	61.23%	57.14%	109	13.39	66.59%	68.88%	65.19%	109	44.04%	159.50	162.30	151-175
2016-2017	87	29.64	69.24%	72.64%	70.98%	87	25.61	67.79%	73.91%	71.54%	87	11.89	54.52%	59.91%	58.51%	87	13.89	64.17%	68.98%	66.40%	87	55.17%	164.72	161.27	151-173
Total	316	29.12			70.63%	316	25.18			69.94%	316	12.36			59.02%	316	13.59			64.71%	316	47.15%	161.59		
*This Praxis Test was new for the 2014-2015 year.																									
**This data reflects the number of tests and their average. In this data a student taking the test mulitple times is counted for each attempt in the N.																									
***Passing Percentage was calculated using the State Pass Score on file with ETS for the Praxis at that time. For 5018, the passing score on file with ETS is a 163.																									

Praxis Test 5018-Elementary Education: Content Knowledge Highest Score Per Candidate																									
	Category 1: Reading /Language Arts (Pts Possible 40-42)					Category 2: Mathematics (Pts Possible 36)					Category 3: Social Studies (Pts Possible 20-21)					Category 4: Science (Pts Possible 21)					Total (Pts Possible 100-200)				
	N and Average for Institution		Average % Correct			N and Average for Institution		Average % Correct			N and Average for Institution		Average % Correct			N and Average for Institution		Average % Correct			N	Passed	COE Average	National Average	Average Performance Range
Year	N	Average	National	State	Institution	N	Average	National	State	Institution	N	Average	National	State	Institution	N	Average	National	State	Institution					
2014-2015	81	30.44				81	27.47				81	13.94				81	14.44				81	65.43%	167.52	168.97	161-181
2015-2016	75	30.31	73.87%	74.73%	72.66%	75	26.81	74.46%	76.68%	73.02%	75	12.72	62.50%	62.95%	59.86%	75	14.27	70.98%	70.88%	67.63%	75	64.00%	166.01	167.20	160-179
2016-2017	73	30.32	72.18%	73.98%	72.12%	73	26.95	71.80%	76.37%	73.89%	73	12.42	58.86%	62.00%	60.67%	73	14.41	68.53%	71.35%	67.80%	73	65.75%	168.68	165.93	158-177
Total	229	30.36			73.59%	229	27.09			75.24%	229	13.06			62.40%	229	14.38			68.46%	229	65.07%	167.40		
*This Praxis Test was new for the 2014-2015 year.																									
**This data includes the highest score per candidate. If a candidate took the test multiple times, only the highest score is recorded here.																									
***Passing Percentage was calculated using the State Pass Score on file with ETS for the Praxis at that time. For 5018, the passing score on file with ETS is a 163.																									

ETS® Proficiency Profile Content

The *ETS*® Proficiency Profile was developed to measure and demonstrate the outcomes of general education programs in order to help institutions improve the quality of instruction and learning. It is a test of college-level skills in reading, writing, critical thinking and mathematics designed to measure the academic skills developed through general education courses, rather than the subject knowledge specifically taught in those courses.

All of the subject knowledge required to answer each question is contained in the question itself or the supporting materials that accompany the question.

Skills Measured

Reading

College-level reading questions measure students' ability to:

- interpret the meaning of key terms
- recognize the primary purpose of a passage
- recognize explicitly presented information
- make appropriate inferences
- recognize rhetorical devices

Writing

College-level writing questions measure students' ability to:

- recognize the most grammatically correct revision of a clause, sentence or group of sentences
- organize units of language for coherence and rhetorical effect
- recognize and reword figurative language
- organize elements of writing into larger units of meaning

Critical Thinking

Critical thinking questions measure students' ability to:

- distinguish between rhetoric and argumentation in a piece of nonfiction prose
- recognize assumptions

- recognize the best hypothesis to account for information presented
- infer and interpret a relationship between variables
- draw valid conclusions based on information presented

Mathematics

Mathematics questions measure students' ability to:

- recognize and interpret mathematical terms
- read and interpret tables and graphs
- evaluate formulas
- order and compare large and small numbers
- interpret ratios, proportions, and percentages
- read scientific measuring instruments
- recognize and use equivalent mathematical formulas or expressions

ETS Proficiency Profile Standard Form

The Standard form of the ETS Proficiency Profile test is intended to provide information about individual students as well as groups of students. It consists of 108 questions, divided into two sections of 54 questions each. The two sections may be administered either in a single two-hour testing session or in two separate, one-hour testing sessions. The Standard form includes:

- 27 questions testing critical thinking skills
- 27 questions testing reading skills
- 27 questions testing writing skills
- 27 questions testing mathematics skills

Additionally, students taking the Standard form can earn a Certificate of Achievement based on how well they perform.