



# How NCTQ scores the Elementary Content Standard

## [Standard and indicators](#)

### Data used to score this standard

Evaluation of elementary teacher preparation programs on Standard 6: Elementary Content uses the following sources of data:

- Undergraduate and graduate catalogs
- Degree plans provided by institutions of higher education (IHEs)
- Relevant IHE websites (e.g., websites for the college of education or the registrar, or graduate school application pages)
- Syllabi (when available and as necessary)
- Textbook listings made available by the IHE bookstore
- Admissions-relevant documents, including transcript review forms
- State regulations regarding content preparation of elementary teacher candidates

### Who analyzes the data

Two [general analysts](#) independently evaluate each **undergraduate** or **graduate** program using a detailed scoring protocol from which this scoring methodology is abstracted. For information on the process by which scoring discrepancies are resolved, see the “scoring processes” section of the [General Methodology](#).

### Scope of analysis

In **undergraduate programs**, absent administration of an appropriate test<sup>1</sup> as a condition of admission to a teacher preparation program, the evaluation of this standard under Indicator 6.1 begins with a review to determine whether the IHE exempts any student (including teacher candidates) from specific course requirements on the basis of standardized assessments commonly recognized as demonstrating content mastery at the level provided by post-secondary or rigorous secondary instruction.

Analysis then proceeds to the catalog-based identification of all of the content coursework that the IHE requires teacher candidates to take in order to meet general education requirements and/or teacher preparation program requirements.<sup>2</sup> Catalog course descriptions are then used to evaluate whether the courses address the topics specified in the standard and are rigorous and comprehensive enough to ensure that graduates will be able to

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<sup>1</sup> Any standardized test of content mastery will suffice, including a demonstration through any high school or college-level examination generally accepted as a substitute for college coursework or a suitably rigorous elementary content test (such as those normally used for licensing purposes) with scores provided for all subjects.

<sup>2</sup> Course prerequisites are also included in our evaluation.

add value above and beyond that provided by elementary grade textbooks and curriculum guides.<sup>3</sup> Courses too narrowly focused on a particular topic instead of the comprehensive scope needed by elementary teachers are not deemed adequate. When necessary and available, syllabi and/or bookstore listings of required textbooks are consulted to assist in this evaluation.

Programs adequately preparing elementary teacher candidates require evidence of content mastery or at least one course (equivalent to three semester credit hours (SCHs)) addressing at least a majority of topics in each of the first three subject areas in the standard: literature and composition, history and geography, and science.<sup>4</sup>

Lastly, analysts determine under Indicator 6.2 if the program requires that teacher candidates complete at least an 18 SCH concentration in a subject relevant to the elementary curriculum. The requirement of a concentration boosts a program's score by one score level.

More information about analysis of coursework requirements

**How do analysts evaluate a menu of course choices?** Allowing teacher candidates to select from a menu of course choices can result in a lower score if it means that candidates can opt out of coursework that is considered essential or if one or more of the course selections is deemed inadequate. In other words, an option that allows a candidate to choose one of a number of courses from a menu might result in a lower score if even one of the courses is too narrow in scope or not in a relevant topic area.

For example, at one undergraduate elementary preparation program we evaluated, candidates are not provided any guidance on their choice of science coursework. They can choose any two courses (some with labs, some without) from a list that includes *41 different courses in nine different departments*. While some of these courses would certainly fulfill our science topic requirements, the program would not receive credit in the science subject area because *any* two of them would not.

**Can coursework be taught by education school faculty?** With the exception of children's literature coursework, coursework must be taught in liberal arts departments rather than in the education department,<sup>5</sup> and all liberal arts department coursework must be designed for the general audience and not the teacher audience.<sup>6</sup>

**What about courses taught with a religious perspective?** Courses offering religious perspectives on liberal studies coursework do not receive credit in the evaluation of this standard.<sup>7</sup> This includes science coursework that explicitly endorses pseudo-scientific principles such as creationism or intelligent design, literature courses that entail religious study of the Bible (as opposed to analysis of the Bible as literature) and history courses that focus exclusively on the establishment or development of religions.

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<sup>3</sup> Course descriptions are admittedly short and cannot convey full information about the scope of a course, but they can be appropriately used in a very circumspect and circumscribed manner. Often, the complete absence of course requirements in a specific area is the basis for evaluation, meaning that it is not even necessary to look at a course description. If examination of the description is necessary, the examples provided at the conclusion of this scoring methodology provide clear demonstrations of the discriminatory power afforded by even a few sentences of description. More discussion of evaluation using coursework descriptions is found [here](#).

<sup>4</sup> While coursework in the fine arts is noted in this evaluation, it is considered only in evaluation of "strong design."

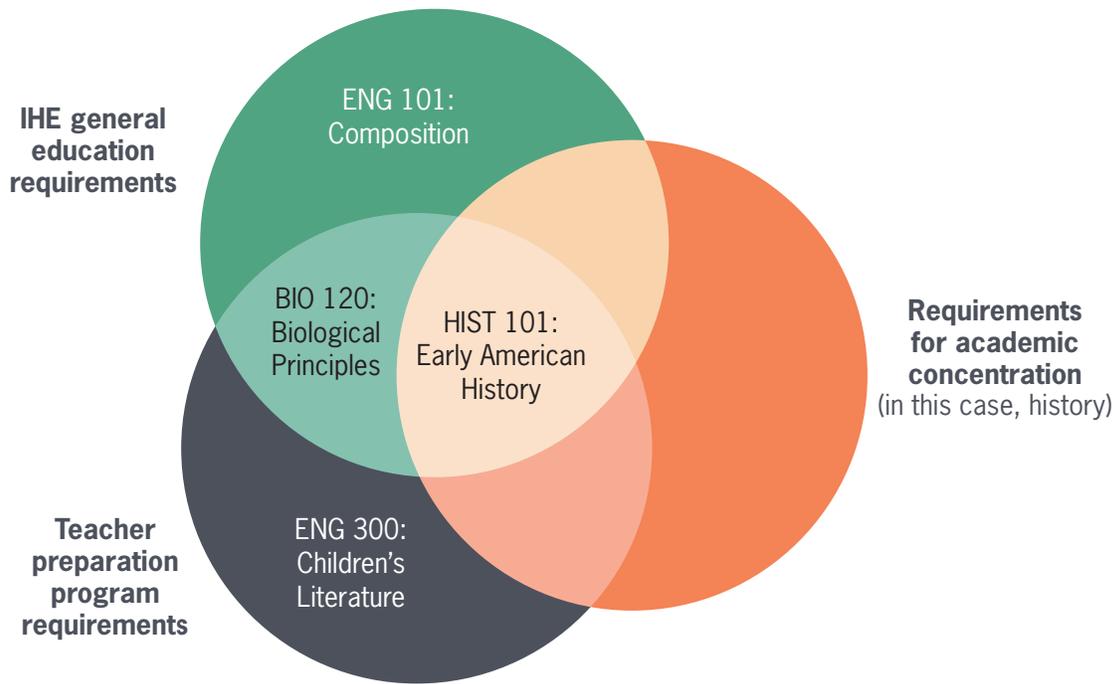
<sup>5</sup> Children's literature coursework taught in the education department must have a content, rather than a pedagogical focus.

<sup>6</sup> As evidenced by **Standard 5: Elementary Mathematics**, in the area of elementary math preparation, there is merit in liberal arts department coursework that is designed for teacher candidates.

<sup>7</sup> If the programs offering these courses only prepared educators to teach in private religious K-12 schools, such coursework would be appropriate. All programs in the *Review*, however, are publicly approved to prepare public school teachers.

As the graphic below illustrates, an individual course fulfilling requirements for both general education and program preparation might be evaluated for Indicators 6.1 and 6.2.

## Evaluating undergraduate elementary content preparation coursework requirements



Due to the availability of information on content preparation in publicly available materials, it was possible to evaluate all undergraduate programs in the sample on this standard.

In **graduate programs**, analysts determine under Indicator 6.3 if the catalog, admissions documents (such as applications and transcript review forms) or other publicly available materials show a clear institutional commitment to ensuring that elementary teacher candidates meet requirements for content knowledge preparation, with the potential for requirements for remedial coursework and acceptable undergraduate majors and/or minors explicitly mentioned. Because these regulations provide an added dimension of information about coursework requirements, analysts also review state regulations where applicable to evaluate graduate preparation.<sup>8</sup>

If analysts are unable to locate any material pertaining to graduate programs' expectations for applicants' coursework coverage, and the state does not regulate prospective teachers' content coverage, programs do not receive credit for requiring preparation in any topic areas and/or for a concentration. Because we take the lack of mention of expectations in this area in any public documents to mean that no content preparation requirements are imposed on graduate teacher candidates, it was possible to evaluate all graduate programs in the sample on this standard.

<sup>8</sup> Applicable regulations are found in: **Alabama, Arkansas, Kentucky, Louisiana, Maryland, Minnesota, Mississippi** (public IHEs only), **Oklahoma, South Dakota** (public IHEs only), **Tennessee** (Board of Regents IHEs only), **Texas**, and **Utah** (Utah System of Higher Education institutions only).

Common misconceptions about how analysts evaluate the Common Core Elementary Content Standard:

- *Pedagogical or teacher audience courses impart the same level of content knowledge as general audience coursework and should receive equal credit.* Teacher candidates need rigorous content coursework to prepare them to teach in the Common Core classroom. Pedagogical and/or teacher audience coursework lacks the appropriate content depth.
- *Elective content coursework can receive credit.* Teacher preparation programs must require content coursework to ensure that teacher candidates have the necessary background knowledge when they enter the classroom.
- *Concentrations in non-teachable subjects can receive credit.* Concentrations must be in teachable subjects to receive credit; if possible areas of concentrations include topics such as health education or psychology, no credit for requiring a concentration is given.

## How a program earns a “strong design” rating

Undergraduate and graduate programs receive a “strong design” designation if they satisfy the standard (which is possible with either adequate coverage in each of the three subject areas evaluated under Indicator 6.1, or somewhat lesser coverage in combination with a concentration evaluated under Indicator 6.2), as well as requiring coursework in the fine arts.

## Examples of what satisfies or does not satisfy the standard’s indicators

### Exempting candidates from coursework on the basis of standardized assessment (Indicator 6.1)

✓ - fully satisfies the indicator	✗ - does not satisfy the indicator
<p>The IHE outlines a policy for students to test out of coursework requirements through submission of standardized assessment scores.</p> <p>Tests that receive credit are Advanced Placement (AP), SAT II Subject Tests, College Level Examination Program (CLEP), Defense Activity for Non-Traditional Education Support (DANTES) and/or International Baccalaureate (IB).</p>	<p>The IHE provides no means for students to test out of coursework.</p>

## Evaluating coursework requirements for topic coverage (Indicator 6.1)

### Subject A: Literature and Composition

**Topic: World Literature:** *A survey course that covers major literary genres and the significant works and movements of Western literature beginning with ancient Greek and/or Roman sources. The course may also include movements and timelines from elsewhere throughout history. Courses that address only portions of world literature, such as courses exclusively on British literature, do not receive credit.*

✓ - fully satisfies the indicator	✗ - does not satisfy the indicator
<p><b>ENGL 2332 - World Literature I.</b> This is a survey of the major works of literature produced across the world from early civilizations to 1650. Students who take this course will increase their awareness of historical cultures; sharpen their critical reading, thinking and writing skills and deepen their cultural sensitivity. English majors and non-majors may take this course.</p> <p>✓ <i>Covers world literature over a sufficiently expansive time period.</i></p>	<p><b>ENGL 211 - English Literature: Beginnings to 1800.</b> Surveys medieval and early modern literary works written in England. Readings may include Beowulf, Chaucer, Spenser, Mary Wroth, and Milton; 18th-century satire, drama, novels.</p> <p>✗ <i>English literature is too narrow in focus.</i></p>

### Subject A: Literature and Composition

**Topic: American Literature:** *A course that covers major authors and themes in American literature from roughly the colonial period to the modern era. Courses that exclusively address themes or time periods in American literature do not receive credit.*

✓ - fully satisfies the indicator	✗ - does not satisfy the indicator
<p><b>ENG 313 - American Literature Survey I: Colonial to WW II.</b> Focuses on master works from the Colonial Era, Dickinson, Poe and Whitman, to World War II. Includes Colonial, Enlightenment, Romantic and Realistic periods.</p> <p>✓ <i>Addresses the major movements and seminal authors of American Literature.</i></p>	<p><b>ENG 225 - Survey of 20th Century American Literature.</b> Survey of selected major American authors in the 20th century.</p> <p>✗ <i>Too narrow in scope.</i></p>

## Subject A: Literature and Composition

**Topic: Writing, Grammar, & Composition:** A course that addresses composition, in particular the writing of expository, argumentative, descriptive and narrative essays. An outstanding course reviews or expects mastery of the rules of traditional grammar, but this is not a requirement.

✓ - fully satisfies the indicator	✗ - does not satisfy the indicator
<p><b>ENG 101 - Composition I.</b> Emphasis on critical thinking, reading and writing clear and coherent essays that reflect an understanding of the writing process, rhetorical analysis, argumentation and academic discourse.</p> <p>✓ <i>Addresses the major themes associated with written communication.</i></p>	<p><b>ENGL 321 - Persuasive Speech and Writing.</b> Focuses on the practice of persuasive discourse in speech, writing and visual media. Includes projects and readings in debate, written argument and rehearsed and extemporaneous speaking. Students investigate such subjects as rhetorical foundations and applications, language choice and stylistic variations, popular culture, literature and communication dynamics.</p> <p>✗ <i>Including public speaking and visual media topics makes the focus of this course too broad.</i></p>

## Subject A: Literature and Composition

**Topic: Children's Literature:** A course that provides an introduction to major authors, works and forms of children's literature. The course should include some examination of children's literature as an historical phenomenon. Courses on methods of instruction in children's literature, which do not provide a survey of authors and works in that literature, do not receive credit.

✓ - fully satisfies the indicator	✗ - does not satisfy the indicator
<p><b>EDUC 325 - Children's Literature.</b> Criteria for the selection and study of literature written especially for children in elementary school; classical and contemporary literature enjoyed by children globally. Required of Elementary Education majors.</p> <p>✓ <i>Covers important topics in children's literature, such as the selection and analysis of texts.</i></p>	<p><b>ED 325 - Teaching Language Arts and Children's Literature.</b> The theory and practice of teaching oral and written communication skills. Special emphasis is given to the interrelationship between literature for young people and the language arts skills of listening, speaking, reading and writing.</p> <p>✗ <i>Focuses too much on teaching strategies.</i></p> <p><b>EDUC 357 - Lit for Children and Adolescents.</b> A survey of youth and adolescent literature and teaching strategies to encourage application of languages and literacy genre, to foster personal-social growth and to encourage lifelong enjoyment of literature.</p> <p>✗ <i>Including adolescent literature limits the amount of time that the course can focus on children's literature. Additionally, this course includes teaching strategies.</i></p>

## Subject B: History and Geography

**Topic: Early American History:** *A course focusing on U.S. history from the colonial period or founding of the republic to the Civil War or Reconstruction. Acceptable start dates or periods: 1492-1776. Acceptable end dates or periods: 1865-1900.*

✓ - fully satisfies the indicator	✗ - does not satisfy the indicator
<p><b>HIST 1301 - United States History I.</b> This is a course that studies the historical development of the United States up to 1877. Students will study the people, events and ideas that influenced United States history in the Colonial, Revolutionary, Early National, Jacksonian, Civil War and Reconstruction eras. Readings, lectures and discussions will consider the American experience as a unique experiment in enlightened liberty and self-government.</p> <p>✓ <i>Fully addresses relevant topics in early United States history.</i></p>	<p><b>HIST 226 - Age of Jefferson and Jackson.</b> How the old republican ideal of a virtuous agrarian society struggled to confront the new age of economic modernization, social diversity and sectional tension.</p> <p>✗ <i>A focus of American history under two of its presidents is not sufficient.</i></p>

## Subject B: History and Geography

**Topic: Modern American History/Political Science:**<sup>9</sup> *A course focusing on U.S. history from the Civil War or Reconstruction era to the modern period (beginning anywhere from 1865 to 1900 and concluding near the present). Courses that cover a narrower span of U.S. history (e.g., 1945-present) do not receive credit unless an additional course is required that completes the time span, OR the course focuses on the constitutional underpinnings, the specific branches, and state and national features of our democracy.*

✓ - fully satisfies the indicator	✗ - does not satisfy the indicator
<p><b>HY 208 - History of the United States from 1865 to Present.</b> From the Reconstruction period to the present. The aftermath of the Civil War, the Reform movements, America Becomes a World Power, the World Wars and the years since 1945.</p> <p>✓ <i>Addresses major developments in modern United States history.</i></p>	<p><b>EDT 362 - Social Science for Teachers II.</b> Political and economic institutions and processes as related to the American experience. Emphasizes historical and contemporary interrelationships of economic and political institutions in American society.</p> <p>✗ <i>Covers both economic and history, rather than history alone, and is designed specifically for a teacher audience. On either ground it does not satisfy.</i></p>

<sup>9</sup> We note that if a teacher candidate may choose between early and modern American history courses and a required course in political science, a program would not receive credit for early American history and modern American history/political science. Our reasoning is that the candidate could choose to take both modern American history and political science, entirely avoiding coursework in early American history.

	<p><b>HIS 152 - The American Experience.</b> A thematic survey of United States history. Topics and period to be emphasized varies, but major developments in political, social, intellectual and economic history are examined.</p> <p>✗ <i>There is no defined time period or historical focus in this course and no guarantee that students will receive adequate coverage of modern United States history topics.</i></p>
<p><b>PLSC 112 - American Government.</b> An overview of the structure and function of American national government, focusing on how government is designed, how individuals form and act on their political preferences, how these preferences are transmitted to government and how government acts (and does not act) on what its citizens want.</p> <p>✓ <i>Course addresses major themes in American government.</i></p>	<p><b>PHI 104 - The Ideal of Democracy.</b> Critical examination of the nature and moral justification of democracy, particularly as it is practiced in the United States.</p> <p>✗ <i>Focus is on the philosophical idea of democracy.</i></p>

**Subject B: History and Geography**

**Topic: Ancient World History:** *This course provides general narratives of all major civilizations in ancient times. NCTQ generally respects the division between ancient and modern world history chosen by the institution. A single course that covers both ancient and modern world history receives no credit for either topic.*

✓ - fully satisfies the indicator	✗ - does not satisfy the indicator
<p><b>HIST 1020 - World History I.</b> Earliest civilizations of Mesopotamia, Egypt, India, China and the Aegean; classical civilizations of Greece and Rome; medieval civilizations of the Middle East, India, East Asia, and Western Europe; Africa and the Americas before European contact; the Renaissance; the Reformation; wars of religion; and age of exploration.</p> <p><b>HIST 103 - World History I.</b> Principal political, economic, cultural and social developments in world history through the 16th century, relating the past to the present. Equal weight given to the history of Asia, Africa, the Americas and Europe.</p> <p>✓ <i>Courses include extensive geographic coverage over a broad time period</i></p>	<p><b>HIST110 - The Ancient World.</b> Interpretation of select literature and art of the ancient Mediterranean world with a view to illuminating the antecedents of modern culture; religion and myth in the ancient near East; Greek philosophical, scientific and literary invention; and the Roman tradition in politics and administration.</p> <p>✗ <i>Focuses on too narrow a time period and geographic region.</i></p> <p><b>HIST 110 - World Civilizations I.</b> Integrated study of social, political and philosophical/religious systems in early civilizations, with an introduction to distinctive art forms.</p> <p>✗ <i>There is no defined time period for this course, and it lacks a sufficient focus on historical developments.</i></p>

## Subject B: History and Geography

**Topic: Modern World History:** *This course provides general narratives of all major civilizations in modern times. NCTQ generally respects the division between ancient and modern world history chosen by the institution. A single course that covers both ancient and modern world history receives no credit for either topic.*

✓ - fully satisfies the indicator	✗ - does not satisfy the indicator
<p><b>HIST 1220 - World History II.</b> European interactions with the people of Asia, Africa and the Americas from 1660; absolutism, the Scientific Revolution and the Enlightenment; civilizations of Africa, the Middle East and Asia; the French Revolution; the Industrial Revolution; nationalism; zenith and decline of European hegemony; 20th century wars and ideologies.</p> <p>✓ <i>Offers thorough coverage of modern world history topics.</i></p>	<p><b>HS 012 - Atlantic World II.</b> This course will focus on the effects of rapid technological and economic development upon European and Atlantic society, politics and ecology. The readings and lectures will explore the dilemmas that industrial civilization created and the various responses to these problems. Our goal is to gain a better understanding of how these forces transformed from “traditional” society to our “modern” world.”</p> <p>✗ <i>Too narrow in scope.</i></p>

## Subject B: History and Geography

**Topic: World Regional Geography:** *A course that analyzes the world from a geographic perspective emphasizing the unique qualities of world regions, the spatial interactions of people, elements, and regions, and major regional and global problems and prospects. The course should address both physical and cultural geography.*

✓ - fully satisfies the indicator	✗ - does not satisfy the indicator
<p><b>GEOG 110 - World Regions.</b> Geographic evaluation of the human imprint on the world, focusing on how peoples of various societies have approached the problems of living in their natural environments and with each other. A requirement for both the major and minor in geography.</p> <p><b>GEOG 103 - World Regional Geography.</b> The interconnectivity and interrelationship of the world regions by stressing physical and economic development and agricultural, cultural and population characteristics. Strengthening of one’s mental world map.</p> <p>✓ <i>Both courses provide thorough coverage of geography.</i></p>	<p><b>GEO 111 - Integrated Social Studies I.</b> This course facilitates excellence in teachers by exploring the interdisciplinary study of integrated social studies curricula, including history; geography; economics; government; citizenship; culture; and science, technology and society.</p> <p>✗ <i>Specifically designed for a teacher audience and includes too many disciplines to adequately focus on geographic concepts.</i></p> <p><b>GEOG 111 - Physical Geography.</b> A study of the physical earth with an emphasis on the processes of planetary composition, planetary motion, the atmosphere, water, plate tectonics, glaciers, landforms, and other major topics. Environmental issues provide applications to current events and conditions. Basic location identification serves as a foundation for atlas and general thematic map usage.</p> <p>✗ <i>Focuses on scientific concepts related to geography, such as geology and astronomy, rather than on the study of human interaction with physical surroundings.</i></p>

## Subject C: Science

**Topic: Biology:** *An introductory course covering biology and matter related to biological processes, including topics such as cellular structures and dynamics, genetics, taxonomy, evolution, plant and animal physiology, developmental biology and ecology. Cellular and molecular biology should be a more significant feature of a course than evolution and/or ecology. Alternatively, an introduction to life sciences, of which a substantial portion is biology content. Courses must emphasize basic themes in biological science, not current issues or methods of instruction.*

✓ - fully satisfies the indicator	✗ - does not satisfy the indicator
<p><b>BIOL 1010/1011 - Principles of Life (and lab).</b> A course for non-science majors. Topics covered include scientific methodology, the nature of living organisms, cell structure and function, cell chemistry and division, nature of heredity and gene action, the theory of evolution and principles of ecology.</p> <p>✓ <i>Offers a rigorous study of biological principles and includes a lab.</i></p>	<p><b>BIOL 102 - Environment and Life Science.</b> Designed for students who are not science majors. Covers basic ecological principles, environmental pollution and environmental challenges from a global perspective. Social, ethical and Christian stewardship views of environmental issues are discussed.</p> <p>✗ <i>Too focused on current events and ecology to provide adequate coverage of biological topics.</i></p> <p><b>BIOL 1050 - General Biology I.</b> An introduction to biology with a Christian-creationist perspective on the major concepts in life science that affect our society and concept of self: DNA and chemical effects on living cells; reproduction and life before birth; genetic principles, general animal and plant studies, ecology, origin and history of life on earth; understanding scientific thinking.</p> <p>✗ <i>Although this course focuses on a variety of biological principles, it conveys a religious perspective on science.</i></p>

## Subject C: Science

**Topic: Chemistry:** *An introductory courses covering topics such as measurement, matter and energy, atomic theory and structure, the periodic table, chemical reactions, stoichiometry, chemical bonding, states of matter, reaction rates and equilibria, acids and bases, nuclear chemistry and biochemistry. Alternatively, an introduction to physical science in which chemistry is the primary content presented.*

✓ - fully satisfies the indicator	✗ - does not satisfy the indicator
<p><b>CHEM 131 - General Chemistry I.</b> A non-calculus-based introduction to the fundamentals of modern chemical practice; nuclear, electronic, and physical structure of matter; periodicity of the elements; dynamics of chemical reactions and equilibria. Includes one 3-hour lab per week.</p> <p>✓ <i>A rigorous lab course that covers essential chemistry concepts.</i></p>	<p><b>CHM 20000 - Fundamentals Of Chemistry.</b> Integrative study of core concepts in chemistry that play a major role in governing the physical world. These core concepts are taught within the framework of important societal issues, such as atmospheric chemistry and nutrition. The pedagogy of this course is designed to provide reflective, interactive and hands-on learning experiences that will assist elementary education majors to develop useful instructional strategies for their own classrooms. Required of students in the elementary education program in the School of Education. Not available for credit toward graduation in the School of Science.</p> <p>✗ <i>Designed for a teacher audience and includes pedagogical strategies.</i></p>

## Subject C: Science

**Topic: Physics:**<sup>10</sup> *An introductory course covering motion, energy, conservation laws, gravity, phase changes, thermodynamics, electricity, magnetism, sound, light and wave dynamics. Alternatively, an introduction to physical science in which physics is the primary content presented. Courses in which three to four earth science topics (geology, meteorology, astronomy and oceanography) are included may also be accepted. Courses must emphasize basic themes in physics, not current issues or methods of instruction.*

✓ - fully satisfies the indicator	✗ - does not satisfy the indicator
<p><b>GEPH 101 - Physical Science.</b> A survey course with emphasis on understanding the fundamental laws of nature and the logical application of these laws to specific situations; particular areas covered include analysis of motion, Newton's Law, energy, momentum, the nature of heat and the nature of sound</p> <p>✓ <i>Addresses fundamental topics in physical science.</i></p>	<p><b>PHYS 107 - Physics Concepts for Nonscientists.</b> Overview of physical science, from subatomic particles to cosmology. Intended to help students understand the importance of scientific research in society with emphasis on basic ideas about how the Universe operates. Readings from popular books by leading scientists for non-science majors. For students without high school physics or with limited mathematics background.</p> <p>✗ <i>Lacks rigorous coverage of physics concepts.</i></p>

<sup>10</sup> In order to consistently evaluate a wide range of courses in the sciences, we classify as "physics" three different types of courses: 1) physics, 2) physical science coursework that is evenly divided between coverage of physics and chemistry, and 3) earth science.

**ESCI-100 - Elements of Earth-Space Sciences.**

This course provides an introduction to the scientific method through a study of the basic elements of the earth sciences: physical geography, meteorology, geology, oceanography and astronomy. The course provides a broad understanding of the Earth system and the interrelationships between the various components of the Earth system. Students learn concepts and theories pertaining to the scientific method and the earth sciences in lectures and then are expected to apply those concepts in labs and on exams. The course meets for two hours of lecture and two hours of lab each week.

✓ *Thoroughly addresses earth science concepts and includes a lab.*

**ESC 111 - Physical Geology.** Survey of geologic materials and processes.

✗ *Too narrow in scope, focusing only on geology without coverage of other earth science topics.*

**Undergraduate concentrations (Indicator 6.2)**

A program could receive credit for a concentration in either of two ways:

- *A credit-by-credit count based on required coursework*
- *A program-mandated major or minor in which all majors or minors offered are in a teachable area.<sup>11</sup>*

Concentration	Possible Coursework Counted Toward Concentration
English/Language Arts	<i>Literature, writing, composition, grammar</i>
Social Studies	<i>History, government, political science, economics, geography</i>
Mathematics	<i>Mathematics, statistics</i>
Science	<i>Biology, life sciences, chemistry, physics, geology, earth science, physical science, environmental science</i>
Foreign Language	<i>Coursework in any one language, including American Sign Language</i>
Fine Arts	<i>Art history, theory, practice; OR music history, theory, practice</i>

<sup>11</sup> In many cases, state regulations mandate that teacher candidates have majors or minors. However, our evaluation found that programs do not generally comply with state regulations in this area. Both because of a general lack of compliance and because our requirement that a concentration be in a teachable subject is more restrictive than some regulations, we evaluate program requirements independently of state regulations. The following states require majors: **Colorado, Massachusetts and New Mexico**. The following states require minors or concentrations: **California, Indiana, Iowa, Michigan, Mississippi, Missouri, New Hampshire, New Jersey, New York, Oklahoma, Tennessee, Texas, Vermont and Virginia**.

✓ - fully satisfies the indicator		✗ - does not satisfy the indicator	
<p><b>One of the following majors is required: Biology, English, French, Geography, History, Math, Political Science or Spanish.</b></p>	<p>Required coursework totals 21 SCHs in history, geography and economics.</p> <p><i>Note: Some of this coursework may have also received credit for subject area coverage under Indicator 6.1.</i></p>	<p><b>An undergraduate major in an unspecified subject is required.</b></p> <p><b>A minor in one of the following areas is required: Biology, Early Childhood Education, English, French, Geography, History, Math, Political Science, Psychology, Reading, Spanish.</b></p> <p><i>Note: This list includes minors in non-teachable subjects such as Early Childhood Education, Psychology, and Reading.</i></p>	<p>The total number of SCHs of required coursework in any of the above areas of concentration totals fewer than 18 SCHs.</p>

**Graduate preparation requirements (6.3)**

Content Preparation	
✓ - fully satisfies the indicator	✗ - does not satisfy the indicator
<p>The program requires undergraduate coursework entailing:</p> <p>Three English courses, four social studies courses (acceptable fields: history, geography, political science, economics), biology lab science, a natural science course in a field other than biology.</p>	<p>The program states that applicants should “have a broad range of coursework appropriate for the elementary classroom.”</p>

### Graduate preparation requirements (6.3)

Concentration	
✓ - fully satisfies the indicator	✗ - does not satisfy the indicator
The program indicates that applicants should “show evidence of an 18 credit concentration in English/Language Arts, History, Math, or Science.”	The program indicates that applicants should have a major in a Liberal Arts subject.