



## CORE CURRICULUM COMPONENT APPLICATION

<b>CORE COMPONENT AREA</b>	Life and Physical Sciences
<b>COURSE TYPE</b>	Existing Core
<b>DEPARTMENT</b>	Geology
<b>COURSE RUBRIC &amp; NUMBER</b>	1404
<b>COURSE NAME</b>	Historical Geology
<b>CATALOG DESCRIPTION</b>	Students study the chronological sequence of events in the physical history of the Earth and it's life forms. Laboratory activities involve the students in acquiring and evaluating data related to fossils and their relationship to ancient environments. Students also organize and process data related to the classification of fossils and principles underlying the relationships between lithology, age, structure and geological map interpretation. (COs 1,2,3,4) Prerequisite: GEOL 1403
<b>NUMBER OF SECTIONS OFFERED/FALL</b>	1
<b>NUMBER OF SECTIONS OFFERED/SPRING</b>	2
<b>EXTIMATED ANNUAL ENROLLMENT</b>	60
<b>COURSE LEVEL</b>	Freshman
<b>CONTACT PERSON (dept. representative)</b>	Dennis C.Edwards
<b>EMAIL ADDRESS</b>	dedwards@odessa.edu
<b>PHONE</b>	432-335-6558
<b>DEPARTMENT APPROVAL STATUS</b>	<b>Select One</b> - Date Click here to enter a date.
<b>CORE COMMITTEE COMMENTS</b> <small>(REQUEST FOR ADDITIONAL INFORMATION)</small>	
<b>CORE COMMITTEE APPROVAL STATUS</b>	Select One - Date Click here to enter a date.

Best practices and accreditation guidelines generally place the faculty in a position of responsibility for curricular decisions.

## CORE CURRICULUM COMPONENT APPLICATION

*Indicate below how each learning objective will be supported, what strategies or activities will be used to introduce each objective and how student learning will be assessed.*

**\*NOTE: Component Area Option –**

- A. A minimum of 3 SCH must meet the definition and corresponding Core Objectives specified in one of the foundational component areas
- B. As an option for up to 3 semester credit hours of the Component Area Option, an institution may select course(s) that:
  - i. Meet(s) the definition specified for one or more of the foundational component areas; and
  - ii. Include(s) a minimum of three Core Objectives, including Critical Thinking Skills, Communication Skills, and one of the remaining Core Objectives of the institution's choice.

#	THECB CORE OBJECTIVE "ICO"	PROGRAM GOALS/OUTCOMES	COURSE LEARNING OUTCOMES	KEY IDENTIFIERS	LEARNING EXPERIENCE	ASSESSMENT
1	<p><b>Critical Thinking Skills</b> - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.</p> <p><i>Must be addressed in all core curriculum courses</i></p>		Identify the major tectonic events in the geologic evolution of North America.	Students will throughout the course be lectured on the major mountain building events and transgressive sequences for the North American continent. Students will relate major tectonic episodes with the major mountain building events and rise and fall in sea level to a diagram.	Students study the orogeny and transgressive sequence diagrams and correctly label them according to their understanding of Earth's history for the North American continent.	This core objective will be assessed by an interdepartmental assessment committee using the Critical Thinking rubric.

## CORE CURRICULUM COMPONENT APPLICATION

2	<p><b>Communication Skills</b> - to include effective development, interpretation and expression of ideas through written, oral and visual communication.</p> <p><i>Must be addressed in all core curriculum courses</i></p>		<p>Communicate how principles of relative and numerical age dating have been used to develop the Geologic Time Scale.</p>	<p>Students will explain the principles of relative dates via the Geologic Time Scale diagram.</p>	<p>Students will study diagram of the Geologic Time Scale which is based on relative dates and extinction events. They will know the major divisions of geologic time (eon, era, period, epoch). They will label the Geologic Time Scale based upon their understanding of relative dates and extinction events.</p>	<p>This core objective will be assessed by an interdepartmental assessment committee using the Communication rubric.</p>
3	<p><b>Empirical and Quantitative Skills</b> - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions</p> <p><i>Must be addressed in all Mathematic, Life and Physical Sciences, AND Social &amp; Behavioral Sciences component area core curriculum courses. Optional for all other component areas.</i></p>		<p>Taxonomically classify samples of geologically important fossil groups.</p>	<p>Students will study fossils based on their taxonomy and classify them according to their groups.</p>	<p>Students will, using their lab manual and fossil samples provided by the instructor, classify important fossils based on their preservation components. Students will draw, label, take photos of the samples and identify them based on their taxonomy. Example: Inoceramus,</p>	<p>This core objective will be assessed by an interdepartmental assessment committee using the Empirical and Quantitative Skills rubric.</p>

## CORE CURRICULUM COMPONENT APPLICATION

					bivalvia, mollusks. Important clam of the Jurassic and the Cretaceous.	
4	<p><b>Teamwork</b> - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.</p> <p><i>Must be addressed in all Communication, Life &amp; Physical Sciences, and Creative Arts component area core curriculum courses. Optional for all other component areas.</i></p>		Apply relative and numerical age-dating techniques to construct geologic histories including the correlation of stratigraphic sections.	Students will identify basic structural features on geologic maps, block diagrams, and stratigraphic sections.	Students in groups are given various sets of geologic maps, block diagrams, and stratigraphic sections. Students, after conferring with team mates, will answer specific questions and label diagrams based on prior lecture knowledge about geologic maps and stratigraphy.	This core objective will be assessed by an interdepartmental assessment committee using the Empirical and Quantitative Skills rubric.
5	<p><b>Social Responsibility:</b> to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities</p> <p><i>Must be addressed in all Language, Philosophy &amp; Culture, Creative Arts, American History and</i></p>					

## CORE CURRICULUM COMPONENT APPLICATION

	<p><i>Government/Political Science, and Social &amp; Behavioral Sciences component area core curriculum courses. Optional for all other component areas.</i></p>					
6	<p><b>Personal Responsibility</b> - to include the ability to connect choices, actions and consequences to ethical decision-making.</p> <p><i>Must be addressed in all Communication, Language, Philosophy &amp; Culture, American History and Government/Political Science component area core curriculum courses. Optional for all other component areas.</i></p>					
7						
8						
9						
10						



# CORE CURRICULUM COMPONENT APPLICATION

## Critical Thinking Skills

To include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.

***Must be addressed in all core courses***

## Communication Skills

To include effective development, interpretation and expression of ideas through written, oral and visual communication.

***Must be addressed in all core courses***

## Empirical and Quantitative Skills

To include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

***Must be addressed in all core courses that satisfy the following requirements:***

- Mathematics
- Life and Physical Sciences
- Social and Behavioral Sciences
- Some Component Area Options

## Teamwork

To include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.

***Must be addressed in all core courses that satisfy the following requirements:***

- Communication
- Life and Physical Sciences
- Creative Arts
- Some Component Area Options

## Social Responsibility

To include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national and global communities.

***Must be addressed in all core courses that satisfy the following requirements:***

- Language, Philosophy and Culture
- Creative Arts
- American History
- Government/Political Science
- Social and Behavioral Sciences
- Some Component Area Options

## Personal Responsibility

To include the ability to connect choices, actions and consequences to ethical decision-making.

***Must be addressed in all core courses that satisfy the following requirements:***

- Communication
- Language, Philosophy and Culture
- American History
- Government/Political Science
- Some Component Area Options