



CORE CURRICULUM COMPONENT APPLICATION

CORE COMPONENT AREA	Life and Physical Sciences
COURSE TYPE	Existing Core
DEPARTMENT	Geology
COURSE RUBRIC & NUMBER	1403
COURSE NAME	Physical Geology
CATALOG DESCRIPTION	This course is a study of the physical and chemical aspects of the Earth's interior and exterior crust. Students will study the origin, occurrence, and classification of minerals, rocks, structures and landforms. Lab activities involve the students in organizing and processing data related to the classification of minerals and rocks and principles underlying the relationship between topographic maps and geologic processes. (CO's 1,2,3,4) Prerequisite: none
NUMBER OF SECTIONS OFFERED/FALL	3
NUMBER OF SECTIONS OFFERED/SPRING	2
EXTIMATED ANNUAL ENROLLMENT	120
COURSE LEVEL	Freshman
CONTACT PERSON (dept. representative)	Dennis C. Edwards
EMAIL ADDRESS	dedwards@odessa.edu
PHONE	432-335-6558
DEPARTMENT APPROVAL STATUS	Select One - Date Click here to enter a date.
CORE COMMITTEE COMMENTS <small>(REQUEST FOR ADDITIONAL INFORMATION)</small>	
CORE COMMITTEE APPROVAL STATUS	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.

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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>Critical Thinking Skills - 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>		Describe how the scientific method has led to our current understanding of Earth's structure and processes.	Students will study the diagram of the Earth's interior.	Students will label a diagram of the Earth's interior structures with the components and boundaries.	This core objective will be assessed by an interdepartmental assessment committee using the Critical Thinking rubric.
2	<p>Communication Skills - to include effective development, interpretation and expression of ideas through written, oral and visual communication.</p> <p><i>Must be addressed in all core</i></p>		Students will communicate how surface processes are driven.	Students will explain the hydrologic cycle and what drives it.	Students will label and explain a diagram of the hydrologic cycle and relate it to erosion on the rock cycle. Students will label a diagram of the rock cycle.	This core objective will be assessed by an interdepartmental assessment committee using the Communication rubric.

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	<i>curriculum courses</i>					
3	<p>Empirical and Quantitative Skills - 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 & Behavioral Sciences component area core curriculum courses. Optional for all other component areas.</i></p>		Classify rocks and minerals based on chemical composition, and physical properties.	Students will identify minerals and rocks in lab based on their chemical composition and physical properties.	Students will perform task of testing unknown minerals by each of the identifying physical properties: color, streak, hardness, specific gravity, crystal structure, and breakage pattern. Students will perform task of identifying unknown rocks by their chemical composition and texture. The set of unknown rocks and minerals are compared to the known characteristics.	This core objective will be assessed by an interdepartmental assessment committee using the Empirical and Quantitative Skills rubric.
4	<p>Teamwork - 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</i></p>		Apply knowledge of topographic maps to quantify geometric aspects of topography.	Students in groups will analyze various topo. maps and answer questions pertaining to those maps and determine various landforms.	Students are given a set of various topo. maps and based upon their prior lecture knowledge answer a series of questions with their	This core objective will be assessed by an interdepartmental assessment committee using the Empirical and Quantitative Skills rubric.

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	<p><i>Communication, Life & Physical Sciences, and Creative Arts component area core curriculum courses. Optional for all other component areas.</i></p>				<p>team mates. For example: determining lat. long. of specific points on the map, calculating slope, and determine landforms based on contour lines.</p>	
5	<p>Social Responsibility: 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 & Culture, Creative Arts, American History and Government/Political Science, and Social & Behavioral Sciences component area core curriculum courses. Optional for all other component areas.</i></p>					
6	<p>Personal Responsibility - to include the ability to connect choices, actions and consequences to</p>					



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	ethical decision-making. <i>Must be addressed in all Communication, Language, Philosophy & Culture, American History and Government/Political Science component area core curriculum courses. Optional for all other component areas.</i>					
7						
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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