

11-16-13

Courses to Meet the Area of Science:

Courses in this area focus on teaching students the concepts and methodologies, findings and applications of science while developing their inquiry and analysis skills. All courses in this area use the scientific method, apply quantitative reasoning, critical thinking, problem-solving, information technology, and a commitment to ethical behavior. All courses must include a lecture and laboratory.

Curriculum Area	Educational Goals	Learning Outcomes Students will:
Science	Knowledge 1 – Concepts, Methodologies, Findings, and Applications of Natural Sciences, Engineering and Technology	1. understand the theoretical perspective used in one or more science discipline; 2. understand observational and experimental methods used in one or more of the sciences; 3. understand applications and limitations of the sciences;
	Skills 1 – Communication	1. develop an understanding of how to communicate scientific procedures, results from the inquiry and conclusions resulting from applying the scientific method;
	Skills 2 – Critical Thinking, Quantitative Reasoning, and Solving Problems Individually and Collaboratively	1. develop basic skills from the scientific method including inquiry, data collection, analysis, and interpretation in order to explore a scientific problem from hypothesis testing to formulating a conclusion based on the inquiry; 2. learn about the world through observation and experimentation, through modeling and interpretation, and through analysis and evaluation;
	Skills 3 – Information Technology	1. develop and apply technological tools for inquiry, analysis, and presentation of scientific information and data;

	<p>Values 1 – Ethical Behavior and Personal Responsibility</p>	<p>1. take responsibility for completing assignments in an ethical manner, working on one’s own when required and acknowledging resources when used;</p> <p>2. develop an understanding of the ethical obligations in conducting research, and of being precise and accurate with data, including how this obligation applies to communication of information;</p>
	<p>Values 2-Civic Responsibility</p>	<p>1. develop an understanding of the ethical issues that may result when applying scientific knowledge that is incomplete.</p>