Life and Physical Sciences
Component Area III
Core Curriculum Course Proposals
Rubric Cover Sheet

This document is being provided, hopefully, to assist you as you begin the process of preparing proposals for the 2014 Core Curriculum. You can find the Core Curriculum Component Application at the Academic Affairs website under Forms:
http://www.shsu.edu/~vaf_www/forms/Curriculum.html

The completed application, along with a copy of the course syllabus, needs to be submitted to the Core Curriculum Committee for their consideration. Each of the Component Areas has a Sub-Committee that will be studying the submissions. Each of these Sub-Committees has also developed a rubric that should assist you in understanding what they will be looking for in the applications.

The Life and Physical Sciences Rubric is being provided to those who desire to submit a course for the Life and Physical Sciences Component Area. In preparing proposals for this area please consider the points below. The THECB prepared the standards that the Sub-Committee is using for the development of the Rubric. Be aware that in the end the THECB will approve or not approve the courses we submit to them.

- Read the verbiage in Application and the Rubric carefully and attempt to address thoroughly all of the issues.
- The areas covered in the Rubric are addressing the Component Area criteria, the Skill Objective requirements, and an assessment for each of these.
- Assessments must include at least one direct assessment and may include indirect assessments as well.
    - Direct assessment methods include, but are not limited to, assessment by a panel using a pre-specified scoring rubric; portfolio evaluation by designated faculty portfolio committee; embedded questions designed to measure student learning regarding program objectives; national or state standardized tests; pre/post-tests; or essays scored using rubrics established by a panel of faculty.
    - Indirect assessment methods include, but are not limited to, surveys, student peer evaluations, IDEA results, institutional data, case studies, or focus group feedback.
- In dealing with assessment it is imperative that the same assessment be applied to each section of the course being proposed. In other words it is not acceptable to have separate instructors teaching the course developing their own assessment instrument(s). The instrument(s) should be standardized or departmental in nature.
- If one wishes to use “embedded items in exams” then please be more specific. For example, one might indicate the areas from which the exam items are drawn or perhaps say that a scenario is provided and students are asked to evaluate likely outcomes.
- If essay or papers are required the method of evaluation needs to be provided.

Our goal is to assist you in the development of the application so if we can be of help please feel free to call on us. The members of the Life and Physical Sciences Sub-Committee are listed below.

Committee Members: Anne Gaillard (Chair), Leana Bouffard, Don Freeman, Melinda Holt, Renee James, Valerie Muehsam, Bill Wells, and Ryan Zapalac

Life and Physical Sciences Foundational Component Area
Core Curriculum Courses
Rubric

Standard: Courses in this category focus on describing, explaining, and predicting natural phenomena using the scientific method. Courses involve the understanding of interactions among natural phenomena and the implications of scientific principles on the physical world and on human experiences.

Indicators/Criteria for Life and Physical Sciences Foundational Component Area	Below Criteria Standards	Almost Meets Criteria Standards	Meets Criteria Standards	Exceeds Criteria Standards	Notes
There is a focus on describing, explaining, and predicting natural phenomena using the scientific method. *Obtain scientific knowledge and use it to make predictions about the natural world.*	**Little or no** evidence.	**Some** evidence of a focus on describing, explaining, and predicting natural phenomena using the scientific method.	**Sufficient** evidence of a focus on describing, explaining, and predicting natural phenomena using the scientific method.	**Extensive** evidence of a focus on describing, explaining, and predicting natural phenomena using the scientific method.	
Directly assesses students' ability to describe, explain, and predict natural phenomena using the scientific method.	**Little or no** evidence.	**Some** evidence that the course directly assesses the ability to describe, explain, and predict natural phenomena using the scientific method.	**Sufficient** evidence that the course directly assesses the ability to describe, explain, and predict natural phenomena using the scientific method.	**Extensive** evidence that the course directly assesses the ability to describe, explain, and predict natural phenomena using the scientific method.	
This course involves the understanding of interactions among natural phenomena.	**Little or no** evidence.	**Some** evidence that the course involves the understanding of interactions among natural phenomena.	**Sufficient** evidence that the course involves the understanding of interactions among natural phenomena.	**Extensive** evidence that the course involves the understanding of interactions among natural phenomena.	

Directly assesses students' ability to understand interactions among natural phenomena.	**Little or no** evidence.	**Some** evidence that the course directly assesses the ability to understand interactions among natural phenomena.	**Sufficient** evidence that the course directly assesses the ability to understand interactions among natural phenomena.	**Extensive** evidence that the course directly assesses the ability to understand interactions among natural phenomena.	
This course involves the understanding of the implications of scientific principles on the physical world and on human experiences. *Apply scientific knowledge to critically evaluate information and experiences.*	**Little or no** evidence.	**Some** evidence that the course involves the understanding of the implications of scientific principles on the physical world and on human experiences.	**Sufficient** evidence that the course involves the understanding of the implications of scientific principles on the physical world and on human experiences.	**Extensive** evidence that the course involves the understanding of the implications of scientific principles on the physical world and on human experiences.	
Directly assesses students' ability to understand the implications of scientific principles on the physical world and on human experiences.	**Little or no** evidence.	**Some** evidence that the course directly assesses the ability to understand the implications of scientific principles on the physical world and on human experiences.	**Sufficient** evidence that the course directly assesses the ability to understand the implications of scientific principles on the physical world and on human experiences.	**Extensive** evidence that the course directly assesses the ability to understand the implications of scientific principles on the physical world and on human experiences.	
Skill Objectives for Life and Physical Sciences Foundational Component Area					
Critical Thinking Skills are integrated into the content. • *Creative thinking* • *Innovation* • *Inquiry* • *Analysis of information* • *Evaluation of information* • *Synthesis of information*	**Little or no** evidence.	**Some** evidence that critical thinking skills are integrated into the course content.	**Sufficient** evidence that critical thinking skills are integrated into the course content.	**Extensive** evidence that critical thinking skills are integrated into the course content.	

Effective Communication Skills (written, oral & visual) are integrated into the content. Including: • *Development* • *Interpretation* • *Expression of ideas*	**Little or no** evidence.	**Some** evidence that communication skills are integrated into the course content.	**Sufficient** evidence that communication skills are integrated into the course content.	**Extensive** evidence that communication skills are integrated into the course content.	
Empirical and Quantitative Skills are integrated into the content. *Manipulation and analysis of numerical data or observable facts resulting in informed conclusions. Examples include but are not limited to:* • *Posing research questions* • *Forming hypotheses* • *Developing conclusions* • *Describing distributions* • *Performing experiments* • *Conducting research* • *Collecting evidence*	**Little or no** evidence.	**Some** evidence that empirical and quantitative skills are integrated into the course content.	**Sufficient** evidence that empirical and quantitative skills are integrated into the course content.	**Extensive** evidence that empirical and quantitative skills are integrated into the course content.	
Teamwork Skills are integrated into the content. • Consideration of different points of view • Effectively working with others to support a shared purpose or goal *Examples include (but are not limited to) working together on: performing experiments, analyzing data, and communicating experimental outcomes to others.*	**Little or no** evidence.	**Some** evidence that teamwork skills are integrated into the course content.	**Sufficient** evidence that teamwork skills are integrated into the course content.	**Extensive** evidence that teamwork skills are integrated into the course content.	

Overall Notes: