

Life & Physical Sciences Core Component Sample Rubric (*4 core objectives*)

	Capstone 4	Milestones 3 2		Benchmark 1	Lack of Proficiency 0
CRITICAL THINKING					
Explanation of issues	The problem and solution are stated clearly and described comprehensively, delivering all relevant information necessary for full understanding.	The problem and solution are stated, described, and clarified so that understanding is not seriously impeded by omissions.	The problem and solution are stated and described but not clarified; understanding is impeded by some omissions.	The problem and solution are stated without clarification or description in a way that may be confusing.	The problem and solution are not stated accurately. Student does not understand the issue.
Evidence	Information is taken from source(s) with enough critical evaluation to develop a clear, comprehensive analysis. Viewpoints of experts are questioned thoroughly. Provides full understanding of an issue.	Information is taken from credible, relevant source(s) with enough critical evaluation to develop a coherent analysis. Viewpoints of experts are subject to questioning. Provides solid understanding of an issue with few omissions.	Information is taken from source(s) with some evaluation, but not enough to develop a coherent analysis. Viewpoints of experts are taken as mostly fact, with little questioning. Provides good understanding of an issue with several omissions.	Information is taken from source(s) without any real evaluation. Viewpoints of experts are taken as fact, without question. Provides a limited or one-sided understanding of an issue.	Information is severely lacking or incorrect. Viewpoints of experts are taken as fact, without question, or may even be misrepresented. Provides an inadequate understanding of the an issue.
QUANTITATIVE LITERACY	4	3	2	1	0
Interpretation	Provides accurate explanations of information presented in mathematical forms. Makes appropriate inferences based on that information. <i>For example, accurately explains the trend data shown in a graph and makes reasonable predictions regarding what the data suggest about future events.</i>	Provides accurate explanations of information presented in mathematical forms. <i>For instance, accurately explains the trend data shown in a graph.</i>	Provides somewhat accurate explanations of information presented in mathematical forms, but occasionally makes minor errors related to computations or units. <i>For instance, accurately explains trend data shown in a graph, but may miscalculate the slope of the trend line.</i>	Attempts to explain information presented in mathematical forms, but draws incorrect conclusions about what the information means. <i>For example, attempts to explain the trend data shown in a graph, but will frequently misinterpret the nature of that trend, perhaps by confusing positive and negative trends.</i>	Little attempt to explain information presented in mathematical forms. Multiple incorrect conclusions about what the information means.
Calculation	Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem. Calculations are also presented elegantly (clearly, concisely, etc.)	Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem.	Calculations attempted are either unsuccessful or represent only a portion of the calculations required to comprehensively solve the problem.	Calculations are attempted but are both unsuccessful and are not comprehensive.	Calculations are not attempted in any meaningful way.
Application / Analysis	Uses the quantitative analysis of data as the basis for deep and	Uses the quantitative analysis of data as the basis for competent	Uses the quantitative analysis of data as the basis for workmanlike	Uses the quantitative analysis of data as the basis for tentative,	Fails to use the quantitative analysis of data as the basis for

	thoughtful judgments, drawing insightful, carefully qualified conclusions from this work. <i>Ex. student explains thoughtful ways to use the quantitative information and offers correctives</i>	judgments, drawing reasonable and appropriately qualified conclusions from this work.	(without inspiration or nuance, ordinary) judgments, drawing plausible conclusions from this work.	basic judgments, although is hesitant or uncertain about drawing conclusions from this work.	any judgments. Draws little or no conclusions from this work.
Communication	Uses quantitative information in connection with the argument or purpose of the work, presents it in an effective format, and explicates it with consistently high quality.	Uses quantitative information in connection with the argument or purpose of the work, though data may be presented in a less than completely effective format or some parts of the explication may be uneven.	Uses quantitative information, but does not effectively connect it to the argument or purpose of the work.	Presents an argument for which quantitative evidence is pertinent, but does not provide adequate explicit numerical support. (May use quasi-quantitative words such as "many," "few," "increasing," "small," and the like in place of actual quantities.)	Fails to present an argument for which quantitative evidence is pertinent. Highly inadequate explicit numerical support.
COMMUNICATION	4	3	2	1	0
Organization	Specific introduction and conclusion, sequenced body material, and transitions are clear and consistent. Skillful and cohesive organization.	Specific introduction and conclusion, sequenced body material, and transitions are clear and consistent. Some minor lapses in cohesive organization.	Specific introduction and conclusion, sequenced body material, and transitions are mostly clear but occasionally inconsistent or formulaic. Some lack of cohesion in organization.	Specific introduction and conclusion, sequenced body material, and transitions have been attempted but may be confusing and/or inconsistent. Weak cohesion in organization.	Lack of specific introduction and conclusion, sequenced body material, and transitions. Highly confusing and inconsistent. No real cohesion.
Control of Language	Uses graceful language that skillfully communicates meaning to the audience with clarity and fluency, and is virtually error-free.	Uses straightforward language that generally conveys meaning to the audience. The language has few errors.	Uses language that generally conveys meaning to the audience with clarity, although it may include some errors (slang, incorrect verb forms)	Uses language that sometimes impedes meaning because of errors in usage.	Uses language that consistently impedes meaning because of errors in syntax, grammar, and mechanics, including punctuation, capitalization, and/or spelling for written assignments.
TEAMWORK	4	3	2	1	0
Individual Contributions	Helps the team move forward by articulating the merits of alternative ideas or proposals. Completes all assigned tasks by deadline; work accomplished is thorough, comprehensive, and advances the project. Proactively helps other team members complete their assigned tasks to a	Offers alternative solutions or courses of action that build on the ideas of others. Completes all assigned tasks by deadline; work accomplished is thorough, comprehensive, and advances the project.	Offers new suggestions to advance the work of the group. Completes all assigned tasks by deadline; work accomplished advances the project.	Shares ideas but does not advance the work of the group. Completes all assigned tasks by deadline.	Fails to contribute to group ideas in any meaningful way. Does not complete all assigned tracks by deadline.

	similar level of excellence.				
Constructive climate and conflict resolution	Treats team members respectfully. Consistently motivates other members and provides assistance and/or encouragement. Addresses destructive conflict directly and constructively, helping to manage/resolve it in a way that strengthens overall team cohesiveness and future effectiveness.	Treats team members respectfully. Sometimes motivates other members and provides assistance and/or encouragement. Identifies and acknowledges conflict and stays engaged with it.	Treats team members respectfully. Sometimes motivates other members and provides assistance and/or encouragement. Redirects focus toward common ground, toward task at hand (away from conflict).	Treats team members respectfully. Provides minimal motivation, assistance, or encouragement. Passively accepts alternate viewpoints/ideas/opinions.	Treats team members disrespectfully. Instigates conflict and acts as a barrier to motivation and encouragement.

Possible assignment for assessment

- 1) present students with an erroneous data set, accompanied by "expert" analysis that uses percentages and estimations
- 2) ask students to put the data into visual format (chart, table, graph)
- 3) ask students to review the findings, with an emphasis on the calculations needed to arrive at the percentages and estimations
 - are the author's conclusions valid?
 - what corrections, if any, would the student suggest for the analysis?

The following resources might assist you in filling out the Core Curriculum Request form.

Texas Common Course Numbering System (TCCNS) Matrix

This searchable online database lists classes that Prairie View A&M already accepts for specific transfer credit. The university also is updating its TCCNS articulation.

<http://www.tccns.org/matrix.aspx>

Lower-Division Academic Course Guide Manual

This PDF gives the course descriptions for core classes as they must be offered at Texas community colleges. It may help you determine the proper TCCNS equivalent for the PVAMU core class you are requesting.

<http://www.thecb.state.tx.us/AAR/UndergraduateEd/WorkforceEd/acgm.htm>

Texas General Education Core Web Center

This resource allows you to search the official PVAMU core as of 2003 and also to research courses allowed at other Texas colleges and universities.

<http://statecore.its.txstate.edu/>

Overview of Planning General Education Assessment

https://www.aalhe.org/sites/default/files/aalhe2011_gened.pdf

Ideas for Assessing Critical Thinking

http://www.aacu.org/resources/assessment/critical_thinking.cfm

<http://academic.pgcc.edu/~wpeirce/MCCCTR/Designingrubricsassessingthinking.html>