

Course Title: Power and Energy Technology I (edits)			
Course Number: 8601310			
NGSSS Benchmark	Content Focus	Number of Questions	Suggested Cognitive Complexity (per CPALMS)
<i>Reporting Category 1: Concepts of Technology</i>			
05.02	Define technological systems, which are the building blocks of technology and are embedded within larger technological, social, and environmental systems.	1	1 Level 1
05.08	Define a management system as the process of planning, organizing, and controlling work.	1	1 Level 1
<i>Reporting Category Total</i>		2	
<i>Reporting Category 2: Cultural, Social, Economic, Political, Environmental Effects of Technology</i>			
07.02	Identify technologies devised to reduce the negative consequences of other technologies.	2	2 Level 1
07.03	Identify changes caused by the use of technology ranging from gradual to rapid and from subtle to obvious.	2	2 Level 1
<i>Reporting Category Total</i>		4	
<i>Reporting Category 3: Attributes of Design and Process</i>			
10.01	Recognize the design process; including defining a problem, brainstorming, researching and generating ideas, identifying criteria and specifying constraints, exploring possibilities, selecting an approach, developing a design proposal, making a model or prototype, testing and evaluating the design using specifications, refining the design, creating or making it, and communicating processes and results.	2	2 Level 2
10.04	List competing requirements of a design, such as criteria, constraints, and efficiency.	2	2 Level 2
<i>Reporting Category Total</i>		4	

<i>Reporting Category 4: Engineering Design and Applications</i>			
13.04	Identify design principles used to evaluate existing designs, to collect data, and to guide the design process.	2	2 Level 2
13.06	Identify factors taken into account in the process of engineering.	2 1	1 Level 2
<i>Reporting Category Total</i>		1	
<i>Reporting Category 5: Safe Use of Tools and Equipment in Technology</i>			
17.03	Follow laboratory safety rules and procedures.	3 1	1 Level 2
17.05	Identify color-coding safety standards.	2 1	1 Level 2

17.06	Explain fire prevention and safety precautions and practices for extinguishing fires.	3 2	2 Level 2
17.07	Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.	3 2	2 Level 3
<i>Reporting Category Total</i>			6
<i>Reporting Category 6: Knowledge and Skills of Various Sources of Energy</i>			
19.01	Identify and define key terms, categories, and parts of a steam power system.	3	3 Level 3
19.02	Identify and define key terms, categories, and parts of a hydraulic or pneumatic system.	3 2	2 Level 3
19.03	Identify and define key terms, categories, and parts of an electric power system.	3 2	2 Level 3
19.04	Identify and define key terms, categories, and parts of a solar power system.	3 2	2 Level 3
19.05	Identify and define key terms, categories, and parts of a nuclear power system.	3 2	2 Level 2
<i>Reporting Category Total</i>			8

Overall Percentage for Written Test: 100%

Overall Percentage for Performance Tasks: 0%