Centrifugal Pump Maintenance & Mechanical Seals

Covers basic pumping concepts. Describes required maintenance of packing and seals. Covers maintenance and overhaul of centrifugal pumps. Concludes with maintenance of rotary pumps.

Skills:  
Assemble two parts with a gasket (Amatrol Lab)  
Install, remove, and inspect an o-ring seal. (Amatrol Lab)  
Install, remove, and inspect a lip seal (Amatrol Lab)  
Install, remove and inspect a mechanical seal system (Amatrol lab)  
Trouble shoot the condition of an impeller (GPTC Lab)  
Troubleshoot a centrifugal pump (GPTC Lab)  
Troubleshoot a diaphragm pump (GPTC Lab)  
Replace a centrifugal pump (GPTC Lab)  

Topic: Gaskets  
Learning Objectives:  
Describe the function of a gasket  
Describe common types of gasket materials  
Describe the function and types of sealant  
Describe how to apply a sealant  
Describe how to cut a gasket  
Describe how to install a gasket  

Topic: O-Rings  
Learning Objectives:  
Describe the function of an o-ring seal  
Describe the construction and operation of an o-ring seal  
Describe how to install, remove and inspect an o-ring seal.  

Topic: Lip Seals  
Learning Objectives:  
Describe the function of a lip seal  
Describe the construction and operation of lip seals  
Describe how to install, Remove and inspect a lip seal  

Topic: Mechanical Seals  
Learning Objectives:  
Describe the function of a mechanical seal  
Describe the construction and the operation of mechanical seals  
Describe how to install a mechanical seal  

Topic: Pumps  
Learning Objectives:  
Recall the procedure to troubleshoot a centrifugal pump  
Recall the procedure to troubleshoot a mechanical strain gauge  
Recall the operational and physical characteristics of a diaphragm pump  
Recall the operational and physical characteristics of a centrifugal pump