The Center for Integrated Healthcare Delivery Systems (CIHDS) Academy

Overview
The mission of the CIHDS Academy is to educate young adults about the field of Industrial Engineering through learning modules and examples that focus on the healthcare industry. The learning modules shall utilize Industrial Engineering concepts to demonstrate real world problems encountered in the healthcare industry.

Objectives
The objective of the CIHDS Academy is to create an “engineering camp” for high school seniors. Participants will be engaged in hands-on learning modules that illustrate how industrial engineers solve important problems in the real world.

Approach
• Met with project sponsor to determine desired scope and depth of the camp
• Brainstormed camp and module structure
• Brainstormed possible IE topics to be taught in modules
• Researched engineering & science camps at other institutions
• Identified five specific IE concepts to focus on
• Developed a prototype module
• Tested prototype module on current college students (both engineering and non-engineering students) and administered anonymous surveys for module feedback & validation
• Evaluated feedback from prototype testing session participants and made improvements to module
• Created and developed four more modules
• Tested additional modules on a similar sample group as prototype test group and administered anonymous feedback surveys
• Evaluated feedback from module surveys and made improvements to modules
• Developed and implemented instructional materials for each module that will be utilized by future module leads/instructors

Outcomes
• The sponsor now has five complete learning modules that illustrate industrial engineering principles by using real life examples from the healthcare industry
• Camp participants shall be engaged through hands-on activities to ensure maximum learning and enjoyment
• The project established a foundation for future teams to build and expand upon in future semesters