SLO Assessment Fall 2014 -

PE378A3 – Indoor Cycling

1. Improve cardiorespiratory endurance and lower body strength and endurance.
2. Demonstrate proper bike set up.
3. Assess estimated lactate threshold and estimate personal maximum heart rate.
4. Identify three methods for increasing intensity during a cycling workout.

Assessments Used

SLO 1: 1 mile for time, 1 minute squats, and 15 minutes for distance
Students were tested at the beginning, middle and end of the semester in an all-out 1 mile sprint for time. They were tested at the beginning and end of the semester for their distance in a self-paced rise for 15 minutes and in a 1 minute squat test.

Expected Outcome: Greater than 90% will improve in each category. 10% not improving allows for those with numerous absences, those already in great Cardiorespiratory condition, those ill on testing day, and those who did not try.

Actual Results:

1 Minute Squats: 92% of students (11/12) improved. One student did not improve rather stayed the same. Improvement ranged from an increase of 1 to an increase of 42 squats.
1 Mile Time Trial: 100% (14/14) of students improved. Improvement ranged from a decrease of 1 second to a decrease of 1 minute and 53 seconds (riding 1 mile 1 minute and 53 seconds faster.
How Far in 15: 93% (13/14) of students improved. Improvement ranged from an increase of .2 miles to an incredible increase of 2.2 miles in 15 minutes. The one student who did not improve went .1 of a mile less.

Analysis: These results support our expected outcomes and demonstrate student success in reaching this outcome. No changes necessary at this time. Assessments remain an appropriate gauge of cardiorespiratory endurance and lower body strength and endurance.

SLO 2: Instructor observation of bike set up to determine appropriate seat height and fore/aft positioning.

Expected Outcome: 100% of students will know how to safely move their bike into position, set the seat and handlebar height and the seat fore/aft position correctly for maximum safety and pedal stroke efficiency.

Actual Results: 100% of students correctly demonstrated proper bike set up.

Analysis: From the beginning of the semester, students are reminded of proper seat and handlebar positioning. When they exhibit poor bike set up, they are immediately addressed and reminded of the process for setting up the bike. By the middle of the semester, all students are
proficient in this skill. In the past two years, I have paid special attention to student posture and bike set up in the first four weeks of class. I believe this has helped reinforce proper bike set up and is a practice I will continue. As an added benefit, student knee pain and general discomfort complaints have minimized greatly. In fact, several students commented this semester that their knees felt stronger and that knee pain that existed prior to taking the cycling class had diminished significantly.

PE378C3 – Indoor Cycling – Hills and Drills

1. Demonstrate improved cardiorespiratory endurance and lower body strength.
2. Calculate Target Heart Rate Zone for the purpose of establishing a safe and effective personal indoor cycling workout and demonstrate an understanding of the benefits of training within a target heart rate zone.
3. Identify the appropriate form and safety considerations for various body positions during drills (e.g. standing climb, sated sprint, seated climb, etc.)

SLO #2: Students were asked to calculate their Target Heart Rate and give two benefits for training within a target zone on the Final Exam.

Expected Outcome: It is expected that 80% of the students will be able to correctly calculate their target heart rate using either the simplified equation (220 minus age times training intensity) or the Karvonen Method (220 minus age minus Resting HR times training intensity plus RHR). The 20% failure is expected due to students who fear math and seem to turn off when this concept is introduced. Even though the student is told that they do not need to complete the math, only set up the equation, it has been my experience that some students seem to shut down at the mere mention of the word math. This has led me to try multiple teaching modalities from handouts to writing on a white board to help them understand the formula and to identify where the numbers come from. Student success in this area has improved over the past few years.

Results: Of the six students enrolled in C3, 5 (83%) were able to accurately determine or write the equation to determine the target heart rate. One student did not attempt an answer. With respect to correctly identifying the benefits of using a HR monitor and working in their target zone, 100% of the students listed appropriate training benefits.

Analysis: With an eye to the future, each time I teach target heart rate to students, I try to give them a variety of learning modalities. I have used a white board, handouts, and verbal instructions, each of which has had a positive influence on student success. Because I like to have students moving as they learn about the theory, some students in the back do not hear or see the information as well as I would like. I believe this is one case where a projector and a mini video tutorial might help all students grasp this concept. If the screen were visible to all students at the same time, and the audio were such that all students could hear clearly, I believe we could drop the failure rate to 10% or even negate it altogether. The purchase of a screen and projector is a PIO for the Physical Education Program.