Course Background

• KIN/BIO 300: Physiology of Exercise is required for all KIN majors.
  - Is offered as an elective for BIO majors
  - KIN/BIO 301 is the associated laboratory class
    - not required of all students.
• The course focuses on human physiology, with application to physical activity, exercise, and sports performance
  - Students are challenged to understand the acute responses and chronic adaptations that occur within the cardiovascular, respiratory, metabolic, nervous and musculoskeletal systems due to exercise.
• Classes range from 45 – 94 students
  - dependent on available classroom space
• Typical students are 2nd and 3rd year KIN students and 4th year BIO students.
• Teaching format includes lecturing and in-class activities done individually and in small groups.
• Grade break-down: Exams: ~80% (4 exams with cumulative mid-term and final), Written Assignments:~15% (5 in-class; 5 out of class), Class Participation: 5% (in-class participation and attendance)

Course Changes

To help students become more active in the learning process, these course changes were made.

1. Increased use of in class assignments to increase the number of low stakes opportunities to engage with exam material
   - Change 1 was made to help students engage more readily with the material, allow for review of important concepts, practice answering exam style question, and encourage students to engage with one another

2. Continued use of Metacognitive Reflection for exam preparation and performance
   - Change 2 was made to help students to become more engaged and aware of their learning process and reflect on their exam preparation and subsequent performance
   - Students were asked to reflect on their exam preparation on exam day prior to engaging in the exam and after their grade was posted

Results

• Students reported that:
  - Activities completed in class help them connect with the material and practice answering exam type questions
  - Think/Pair/Share approach increases their understanding of material and comfort in asking questions
  - Powerpoint presentations/class notes are the top resource for exam preparation
  - Low numbers of students use their textbook as a resource
  - The majority of students recognized that they need to begin preparing for exams earlier and give themselves more time, spread out over several study sessions
  - Weekly peer-led review sessions were offered and students provided strong positive feedback for these sessions
  - In class comprehensive review activities and weekly TA sessions were cited as helpful for exam preparation

  "The review worksheets help me to get organized and start thinking about essay questions."

• Student feedback suggests that undergraduate TAs, in class assignments, and metacognitive reflection are positively associated with their class experience

  "I think the TAs do a good job of supplementing the lectures by providing additional examples and explanations that help to clarify the material."

Christie L. Ward-Ritacco, PhD ~ Department of Kinesiology