Today – February 29th

- **Intro** – Pick-up Chapter 13/14 Worksheet; notes out
- **Advanced** – Pick-up returned work and worksheet; warm-ups out
- **Reminders n' Stuff:**
  - Laptops/tablets for tomorrow's reflection
  - Job Shadow needs?

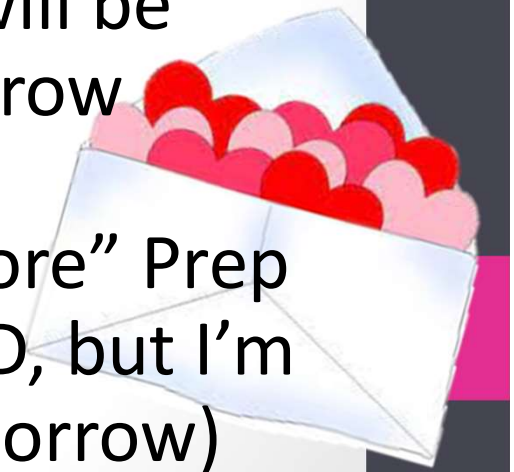
Today – February 29th

Introduction to Sports Medicine

- Muscle Physiology Exam scored; make-ups
- Hoping to have ATR slots available next week; if it's a go, the sheet will open at **6pm tomorrow**
- **Lecture:** HR, Cardiac Cycle and BP

Advanced Sports Medicine

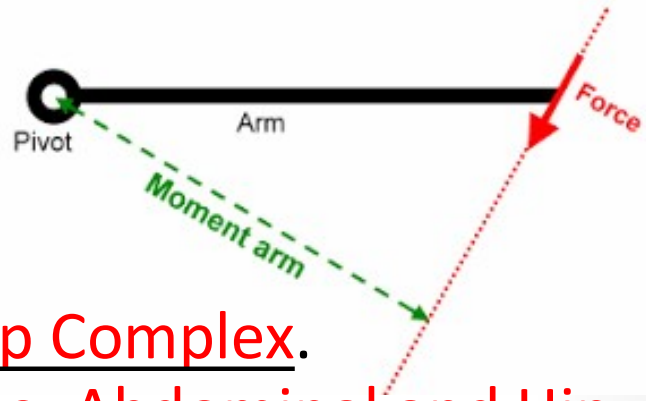
- Chase to take over ATR schedule; it will be "closed" at the end of the day tomorrow
- **Warm-Up**: Kinetic Chain & The Core
  - **Assignment:** "Modeling the Core" Prep Work Worksheet (due date TBD, but I'm thinking end of the period tomorrow)



Warm-Up (No notes, no blanks)

1. The core is otherwise known as the _____.
2. Name the three core muscle groups.
3. Why is it important we acknowledge the human body is a *kinetic chain* in terms of physical activity, injury, rehab, etc.?
4. Describe or draw what a *moment arm* is.
5. Provide an example of a *couple-force relationship* other than at the pelvis (presented Tuesday)
6. How does the COG differ between males and females? Why does it differ?

Warm-Up Key



1. The core or the Lumbo-Pelvic-Hip Complex.
2. Three core groups: Lumbar Spine, Abdominal and Hip
3. Why is the *kinetic chain* important? The body is interconnected and if there is malalignment in one or more of its "links", issues in other areas of the body can occur; body systems are connected & integrated to allow efficient functioning
4. *Moment arm* is? A line perpendicular to the direction of force and the axis of a joint.
5. *Couple-force relationship*? Hamstrings & Quadriceps
6. How does COG differ? It's lower in females and higher in males Why does it differ? Females generally carry more weight in the hips/thighs/abdomen where male care more in their upper body

Modeling the Core Muscles
with Anatomy in Clay

Planning Worksheet

Use your coloring sheets & other resources:

1. Identify the origin and insertion for each muscle
2. Determine what order muscles should be placed on the model (generally, but not always, you'll work deep to superficial)
3. Formulate a plan for how you'll create each muscle in clay; consider:
   - Muscle shape
   - Muscle size relative to others
   - Muscle thickness
   - Fiber direction

Modeling the Core Muscles
with Anatomy in Clay

Helpful Tips

- Warm the clay with your hands to make it malleable for easier handling
- Before making any muscles (for application to your model), play around with the clay and tools; experiment with techniques that can make your muscles look as realistic as possible:
  - Put lines in the clay using the stylus to represent fiber direction; keep areas of tendon(s) or aponeurosis smooth (no lines)
  - For cylindrical muscles, roll clay into "logs" to desired length; pinch the end(s) to narrow to a tendon
  - The round loop end of the stylus is great for shaving the clay to the shape desired

Modeling the Core Muscles
with Anatomy in Clay

Helpful Tips

- Mark, with pencil, origins and insertions on the model prior to making and applying a muscle
- Use a ruler to make sure your clay is long, wide and/or thick enough to reach the origin and insertion
- Do as much work/detailing on a muscle as you can before applying it to the model…it's very hard to work on a muscle once on the model
- As the model has no internal organs for many of the trunk muscles to rest against, use balled up tissue paper to fill the void