Kinesiology 337
Critical Thinking Questions – Shoulder

- How many joints make up the “shoulder?”

- What is the function of the supraspinatus, infraspinatus, teres minor, subscapularis, and biceps brachii? What do they have in common?

- What is the function of the traps, serratus anterior, rhomboids, levator scapulae, and pec minor? What do they have in common?

- What is the function of the deltoids? What do they have in common?

- What is the function of the pectoralis major and latissimus dorsi? What do they have in common?

- If the rotator cuff is injured, where should you look?

- If there is shoulder impingement, where should you look?

- What is the link between the glutes and lats?
If you were going to build a lower extremity:

- Would you include a foot?
- If so, would the foot have 1 bone or 26?
- Would there be arches, or would the foot be flat?
- Would the lower leg have one bone or two?
- How would you connect the lower leg to the foot?
- What would you use to transition between the lower leg and foot?
- Would the muscles of the foot be on the foot or the lower leg? Why? What would be some of the consequences?
- Would you compartmentalize the muscles or not?
- How would your lower extremity operate?
- How would it get injured?
Critical Thinking Questions – Knee

- How many joints make up the “knee?”
- If the femur is flexing the tibia, what motion must accompany the posterior rolling? Why? What causes this accessory motion?
- What is the “safest” knee position for the ACL?
- What is the purpose of the menisci?
- Do the menisci move?
- What is the purpose of the patella?
- Can we isolate (contract by itself) the vastus medialis?
- What muscles cross the knee and the ankle?
- What muscles cross the knee and the hip?
- What are the consequences of these two-joint muscles?
- How do the structures of the knee get injured?
**True or False?**

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<td>1.</td>
<td>T</td>
<td>Herniated discs are caused by excessive compressive forces on the spine.</td>
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<td>2.</td>
<td>T</td>
<td>You can injure your low back by bending down and picking up a pencil.</td>
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<td>3.</td>
<td>T</td>
<td>Shear forces have a higher potential for injury than compressive forces.</td>
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<td>4.</td>
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<td>In order to spare the back, you should always flex the knees and hips, and lift with the legs.</td>
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<td>5.</td>
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<td>In order to prevent low back injury, you should wear a lumbar support belt.</td>
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<td>6.</td>
<td>T</td>
<td>Prolonged sitting on the bench can lead to low back injury in athletes.</td>
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<td>7.</td>
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<td>In order to get “core stability,” it is important to isolate a few individual muscles (e.g., multifidus, transverse abdominis).</td>
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<td>8.</td>
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<td>People with “bad backs” should not perform the squat exercise.</td>
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<td>9.</td>
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<td>Low back rehabilitation should focus on increasing the range of motion available at the spine.</td>
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<td>10.</td>
<td>T</td>
<td>“Core strength” should be the focus of a low back injury prevention program.</td>
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