

Low Back, Core, and Pelvic Girdle

Class Preparation: Anatomy Review Guide

Surface anatomy: be able to locate by inspection and palpation

- **Bony landmarks.** Also important to know which muscles attach to them, if applicable.
 - 11th and 12th ribs
 - Spinous processes of T 1 to L 5, lumbosacral junction
 - Sacro-iliac joint line, sacral foramina
 - Ilium, including crest, PSIS and ASIS
 - Greater trochanter
 - Pubic rami and symphysis
- **Myofascial structures that move and stabilize the lumbosacral spine and pelvis.** Also know attachments.
 - Erector spinae group
 - Quadratus lumborum
 - Iliacus and psoas
 - External obliques
 - Rectus abdominus
 - Gluteus maximus, medius, and minimus
 - Piriformis

Deep anatomy: know locations relative to surface anatomy and other deep structures

- **Lumbosacral Spine**
 - Intervertebral discs: nucleus pulposus, annulus fibrosis
 - Posterior longitudinal ligament
 - Neuroforamen
 - Central canal
 - Neural arch: laminae, pedicles
- **Lumbosacral neurology**
 - Spinal cord
 - Nerve roots and rami L 1 through S 4
 - Sciatic nerve

Functional anatomy and anatomical kinesiology: know attachments and/or functions of the following

- **Lumbosacral neurology**

- Dermatomes
- Myotomes
- **Lumbosacral, gluteal and abdominal anatomical kinesiology**
 - Planes of lumbar motion
 - Primary actions of the following muscles, when contracting unilaterally vs. bilaterally
 - Erector spinae group
 - Multifidi
 - Quadratus lumborum
 - Iliopsoas
 - Abdominals: rectus, obliques, transversarius
 - Gluteals: maximus, medius, minimus
 - Piriformis (and 5 smaller hip external rotators)