I. Attendance & Announcements Remember poster topic & outline w/references due by this afternoon! Next several weeks we meet here! Next Thursday upper extremity bones activity + 1st Year Programs.

II. Lower Extremity Multi- vs. Single-joint Exercises
A. Multi-joint Front squat/squat, leg press, lunge
B. Single-joint Leg extension, leg curl, calf raise (NB:)

III. Open Discussion

SOURCES: VPL, Francis & Martin, McMinn & Hutchings, Panksy +…
Squat!
Lower Body!
COG to periphery!
Front Squat

- Hip
- Thigh front
- Thigh back
- Thigh inside
- Lower back
- Gluteal group
- Quadriceps
- Hamstrings
- Adductors
- Erector spinae
Sprinters rely upon explosive hip & thigh strength emanating from the Center of Gravity!
IT Band Syndrome?

- Fascia over glut. medius
- Iliac crest
- Gluteus maximus
- Ant. sup. iliac spine
- Sartorius
- Tensor fasciae latae
- Rectus femoris
- Iliotibial tract
- Vastus lateralis
- Semitendinosus
- Biceps femoris
Piriformis  
L. pear-shaped

Sciatic n. runs beneath! Sciatica?
Deeper Gluteal Muscles Look Like Pizza Slices!!
Superficial to Deep: *Maximus, Medius, Minimus!*

[Image Source: http://saveyourself.ca/articles/spot-06-gluteus-medius.php]

The gluteus medius and minimus muscles look like slices of pizza!


Leg Press

- Lower back

Hip
Thigh front back inside
Gluteal group
Quadriceps
Hamstrings
Adductors
Leg Extension

Front of thigh = quadriceps
Leg Curl

Posterior thigh = hamstring group

Calf = gastrocnemius (minor involvement)
Donkey Calf Raise – Straight Knee ➔ Gastrocnemius

FROM

@ Top full contraction

Franco Columbo

Former Governor of California!
Arnold Schwarzenegger

@ Bottom full stretch
Technique Analyses of Internet Pictures

Knees straight $\rightarrow 1^0$ gastrocnemius

Not much loading
$cf$: 2x body weight
Technique Analyses (continued)

More of thigh less of knee directly under pad.

Knees bent $\rightarrow 1^\circ$ soleus
Discussion

+ Q?