

STRENGTH AND CONDITIONING SEMESTER 1, GRADING PERIOD 2 STUDY GUIDE

BIGGER, FASTER, STRONGER PROGRAM TECHNIQUES

CORE LIFTS

1. BENCH PRESS

- Position body so that the barbell is directly over the forehead.
- Have the legs wide and feet flat on the floor under the knees.
- Have a slight arch in lower back sticking the chest up as high as possible.
- Place the little fingers on the smooth marks on the bar.
- Squeezing the bar tightly before a max attempt can help improve the lift.
- The Start = Have the spotter lift the weight off the supports and position it above the lifter's throat. The spotter should keep hands on the bar until lifter has secured the weight on extended arms and the bar is motionless.
- The Descent = Take a deep breath and hold it. Lower the bar controlled to the lower chest and gently touch it.
- Upward Drive = Press the bar up and slightly back toward the throat. Hold the breath until the bar passes the hardest position of the lift (sticking point). Eyes should stay fixed on the bar throughout. The spotter will grasp the bar when the set is complete and then help the bar back to the supports. The spotter can assist slightly (with a couple of fingers) the lifter to help through the sticking point (keep the bar moving upward).

2. TOWEL BENCH

- The body position on the bench, start, descent, and upward drive are the same as the bench press.
- The big difference is the towel or pad. Place it under the shirt.
- Bring the bar right into the towel or pad with more than just a light touch before driving it up.

3. PARALLEL SQUAT

- The grip on the bar should be fairly wide with thumbs around the bar.
- Put the bar on the shoulders, not the neck, where there is a natural groove.
- With the bar in the groove get in an athletic stance with the toes slightly out directly under the bar. Put pressure up into the bar and then explosively extend your legs so the bar lifts off the supports. Take a few short steps back and resume an athletic stance.
- The Start = The eyes should be looking straight ahead at a target. Spread the chest and lock in the lower back. Take a big breath and hold it right before the descent. During max outs, take two breaths -- the first breath to let the air settle deep within the rib cavity, and the second breath a quick one as you begin the descent to expand the chest further.
- The Descent = Push the hips back as you begin the descent. Sit tall with the upper body. Descend in an even, controlled pattern until the top of the thighs are parallel to the ground. Keep the knees aligned over the toes.
- Upward Drive = With the chest spread, eyes straight ahead on a target, back sitting tall, and knees aligned over the toes, pop the hips upward and keep the elbows forward.
- Spotters = There are three jobs of the spotters: 1) act as coaches and give correct technique cues, 2) act as judges on depth and technique problems, and 3) be enthusiastic teammates and offer constant encouragement. If possible, there should be three spotters (one behind and two on the sides). They should always be ready to assist the lifter when needed.

4. BOX SQUAT

- The body position under the bar, start, descent, and upward drive are the same as the parallel squat.
- Squat down under control until sitting on the box. Settle back slightly (rock back) and then drive forward and up all the way onto the toes.

5. POWER CLEAN

- The stance is a jump stance. Grasp the bar with hands shoulder width apart and arms straight. The bar should be close to the shins (feel the steel). Spread the chest and focus eyes on a target slightly above.
- 1st Phase = Start the pull with your legs and hips keeping your arms straight. Begin with a controlled pull (not jerking the weight off the floor). Keep a controlled pull until the middle of the thighs. The shoulders will be slightly in front of the bar at this point.
- 2nd Phase = With the bar at mid thigh the lifter will forcefully jump (extend ankles, knees, and hips) while shrugging the shoulders to the ear.
- 3rd Phase = At the top of the jump and shrug the lifter will pull him or herself under the bar by keeping the elbows high and out to the side and by popping the feet out to an athletic stance. The lifter will then snap their elbows under the bar pointing them perpendicular to the body. The bar will land on the shoulders and the lower body will go into a good squat position.
- The exercise is finished when the lifter comes up from the squat holding the bar on the front of the shoulders under control with the feet still.

6. HEX BAR

- Stand inside the hexagon in a jump stance and grab the handgrips squarely in the middle.
- Lower the hips, spread the chest, and focus eyes on a target slightly above.
- Begin with a controlled pull (not jerking the weight off the floor). Using the momentum of the upward movement do a shrug at the top of the lift by bringing the shoulders as high up to the ears as possible.
- Squat down using good technique and slightly touch the weight on the ground before beginning the pull phase for the next repetition.

AUXILIARY LIFTS

7. GLUTE HAM

- Lie facedown on the glute--ham developer with the hip bone extended slightly over the edge of the pad.
- Place your feet in the ankle rollers and place your hands across your chest or behind your head.
- Keep your head aligned with the spine and lift the torso until your back is parallel to the floor. Finish the movement by bending your knees to lift the torso higher. Reverse the technique to return to the start.
- On the way up hold your breath. Exhale halfway down or at the finish.

8. STRAIGHT-LEG DEADLIFT (SLDL)

- Position the feet about hip width apart and rest the bar on mid-thighs.
- Keeping the legs straight lower the bar as far as comfortable with the bar close to the body.
- Inhale as you lower the weight and exhale as you lift it.

9. LEG CURL

- Position the body on the machine so the ankles are behind the pads.
- Flex the knees and pull the ankle pad toward the buttocks and then return to the start. Perform slowly, do not jerk the weight.
- Hold the breath when bending the knees and exhale on the descent.

10. LEG EXTENSION

- Position the body on the machine so the hands can grasp the handles and the ankles are behind the pads.
- Raise the pads until the knees are straight, then lower the weight slowly to the start position.
- Exhale as the weight is lifted and inhale as it is lowered.

11. LAT PULLDOWNS

- Grasp the bar with an overhand grip and hands slightly wider than shoulder width apart. Place the knees under the rollers and look straight ahead.
- Pull the bar to the upper chest while leaning slightly back and then return the bar to the start under control.
- Exhale as the bar is pulled to the chest and inhale as it is returned to the start.

12. BACK ROWS

- Chose an exercise in which the weight is pulled toward the upper abdomen and lower chest.
- At the top of the lift squeeze the shoulder blades together by getting the elbows well behind the back.
- Exhale as the weight is pulled to the body and inhale as it is returned to the start.

13. PULLUPS

- Start with the hands wide, narrow, overhand, or underhand. Arms are straight and head is slightly up.
- Pull the body up until the chin goes above the bar. Lower the body down slowly until arms are straight.

14. INCLINE BENCH PRESS

- Start with the legs shoulder width apart and feet flat on the floor. Grasp the bar overhand shoulder width. Have a spotter help lift the bar off the supports directly over the forehead.
- Lower the bar under control until it touches the upper chest. Keep the hips in the seat. Press the bar back to the start
- Hold the breath when lowering the weight and exhale when pass the sticking point on the way up.

15. DIPS

- Grasp the handles and step up until the arms are straight under the shoulders.
- Slowly lower the body until the upper arms are below parallel and then return to the start.
- Inhale as the body is lowered and exhale when extending the arms.

16. SHOULDER PRESS

- Either standing or seated grasp a bar or dumbbell with the hands at shoulder width apart.
- Press the bar or dumbbell overhead to arm's length and then lower to the start. Do not lean backwards.
- Hold the breath when pressing overhead. Exhale when arms extended. Inhale as the weight is lowered.

17. LUNGES

- Grasp either a dumbbell in each hand or put a bar on the shoulders like a squat.
- Spread the feet about hip width apart. Chest up, shoulders back, and head facing forward.
- Take a step forward and lower the hips. Allow the trailing knee to lower to the point right before the knee touches the ground.
- Push off the forward leg and step back to return to the starting point. Repeat the action with both legs.
- Hold the breath when stepping out and exhale stepping back after the sticking point.

FLEXIBILITY

18. HAMSTRING STRETCH

- Sit on a bench with one leg on it. Keep the leg locked and the toes straight up. Pull the upper body forward with the hands on the bench and the chest spread.

19. LATISSIMUS STRETCH

- Cross the hands, interlocking the fingers, and raise the arms above the head and as far back as possible.

20. PECTORAL STRETCH

- Cross the hands behind the back and raise the arms up and back as far as possible. Stand tall.

21. BACK LEG STRETCH

- Keep the feet flat on the floor with toes straight ahead. Place one foot in front of the other and put the hands on the wall, arms straight. Stand tall and push the hips toward the wall.

22. ACHILLES STRETCH

- Everything is the same as the back leg stretch except that the back knee should be slightly bent. Squat to increase the intensity of the stretch.

23. QUADRICEPS STRETCH

- With one hand on the wall grab the ankle from the outside and pull straight up away from the buttocks. Hold the knee at a 90 degree angle while standing tall. Don't let the knee go out to the side.

24. ABDOMINAL STRETCH

- Lie flat on the floor and place the hands under the shoulders. Straighten the elbows to create an arch in the back.

25. ADDUCTOR STRETCH

- Sit on the floor with your feet as far apart as possible and your knees straight. Grab the ankles or feet and pull the torso slowly toward the floor. If an athlete can't grab the ankles or feet then they should place the fists on the floor behind and push forward.

26. GLUTEUS MAXIMUS STRETCH

- Start sitting on the floor with one leg straight and the other bent and over the straight one. Twist the upper body toward the bent leg using the elbow behind the knee to push the bent knee away from the twist.

27. GROIN STRETCH

- Sit with the bottoms of the feet together. Grab the ankles and pull the feet in toward the body. Place the elbows on the thighs and push the legs down toward the floor.

28. HIP FLEXOR STRETCH

- Kneel on the floor. Place one foot a couple of feet in front of the opposite knee. Place the hands on the bent knee with the arms straight. Spread the chest, kneel tall, and force the hips forward and down.

PLYOMETRICS

29. VERTICAL JUMP

- Place feet in a jump stance and get into a quarter squat with the arms down and behind the body. The elbows should be bent at 90 degrees.
- Forcefully throw both arms up to the sky while extending the ankles, knees, and hips.

30. STANDING LONG JUMP

- Place feet in a jump stance and get into a quarter squat with the arms down and behind the body. The elbows should be bent at 90 degrees.
- Forcefully throw both arms forward while extending the ankles, knees, and hips forward.

31. BOX JUMPS

- From a box jump down to the floor landing in an athletic stance.
- From a box jump down to the floor landing in an athletic stance and immediately recoil up to a vertical jump with both hands above the head.
- Step off a box and immediately jump up to the next box.
- With a series of several boxes lined up an athlete should jump rapidly from floor to box until all boxes have been cleared.
- Perform a vertical jump and tuck the knees up to the chest to land on a box.

32. BOUNDING DRILLS

- An athlete will jump from one leg to another so that with each contact with the foot there is more height and distance covered.

33. DOT DRILL

- Feet apart, jump to middle dot with feet together, jump to end dots with feet apart, and then backwards in same order.
- On right foot on back right dot, jump to middle dot, right front dot, left front dot, middle dot, and left back dot.
- On left foot on back right dot, jump to middle dot, right front dot, left front dot, middle dot, and left back dot.
- On both feet on back right dot, jump to middle dot, right front dot, left front dot, middle dot, and left back dot.
- Feet apart, jump to middle dot with feet together, jump to end dots with feet apart, turn 180 degrees around and then backwards in same order.

34. SPEED TRAINING

- **The Start** = The thumb and first finger are on the starting line. The fingertips support the body weight. Place one foot 4-6 inches behind the starting line and the other foot back an additional 12 inches. Keep the head up. "On your mark" the athlete has the back knee down and the body relaxed. "Get set" the athlete raises the hips higher than the shoulders and shifts the body weight as far forward as possible. The shoulders should be way out in front of they hands. The arm opposite the foot back the farthest goes way up. "Go" the athlete punches the arm that is up forward with great power as the opposite leg explodes forward. The athlete should stay low and extend the back leg completely.
- **Sprint Technique** = - keep the head upright - the eyes should be fixed straight ahead - the toes should point straight ahead - the back should be upright and slightly arched - the shoulders should rotate vigorously, with the elbows fixed at 90 degree angles - the wrists should simulate a whip action as the shoulders rotate back - the feet should make the initial plant directly under the hips - the forward leg should initially lift forward, not up - the lower leg should hang before planting with the foot and toes up - the back knee should extend fully on the follow-through.