## 2023-2024 WINTER ENDURANCE TRAINING PLAN

## NOTE WARM UP \& COOL DOWN PROCEDURES BELOW:

## PERFORMANCE WARM-UP

-3-minute run
10 x linear leg swings on fence $10 \times$ lateral leg swings on fence

## -3-minute run

$2 \times 20 \mathrm{~m}$ forward skips w/ arm swing $2 \times 20 \mathrm{~m}$ lateral shuffle w/ arm swing
$2 \times 20 \mathrm{~m}$ lateral crossovers
$2 \times 20 \mathrm{~m}$ "h" skip
$2 \times 20 \mathrm{~m}$ heel lift
$2 \times 10 \mathrm{~m}$ knee lift

PERFORMANCE COOL-DWN
$2 \times 20 \mathrm{~m}$ lateral squat walk
$2 \times 10 \times$ push up
$2 \times 20 \mathrm{~m}$ forward lunge walk
$2 \times 10 \times$ triceps dip
Stretch circuit

## LEG STRENGTH CIRCUIT

## - Use med-ball for these exercises

$-2 \times 10$ step up twist
$-2 \times 20 \mathrm{~m}$ dbl-leg squat-hops (controlled flection) $-2 \times 20 \mathrm{~m}$ dbl-leg straight-leg hops (quick flection)

## FITNESS WARM-UP

## A: CIRCUIT

$9 \times 50 \mathrm{~m}$ jog / strength circuit:
$-10 \times$ side leg raises, $10 \times$ toe twists
$-20 \times$ opposite arm/leg raises, on chest
-20 x full squat
-30 x scoops
-20 x hands \& knees scorpions
-20 x hurdle position leg lifts
-30 x low reach crunch
$-20 x$ hands \& knees hydrants
$10 \times$ single leg pistol squat
Jog Variation Between Each:
-backward jog x 2
-360 jog x 2
-crossover forward jog x 2
-wide step forward jog $\times 2$

## B: CIRCUIT

$9 \times 50 \mathrm{~m}$ jog / strength circuit:
-20 x hip/trunk rotations, on back, shldrs flat
$-30 \times$ pistons, " $h$ " position to full extension
$-20 x$ side clams
-30 x crunches
$-20 x$ hands \& knees bird dogs
-30 x thrust-crunches
$-20 x$ chest lifts
$-10 \times$ abduction, $10 \times$ adduction leg lifts
-90 sec. standing " $h$ "
Jog Variation Between Each:
-forward skip x 2
-backward skip x 2
-lateral skip x 2
-lateral saddle swings $\times 2$

## FITNESS COOL-DOWN

## - $2 \times 20-30 \mathrm{~m}$ lower-leg strength drills:

-crazy feet (toes up/out, toes up/in, heels up/out, heels up/in)
$-2 \times 10$ heel raises/drops (on step)
-60 sec. toe lift/tap

- 8 minute plank drill
-rotate every minute: front plank/side plank/back plank...

Stretch circuit

## GEN STRENGTH CIRCUIT

## A: CIRCUIT

- Weight Circuit: 3 sets. MAX weight!:

A1. -8 x bench press (dumbbells)
A2. $-8 x$ bent row (dumbbell)
A3. -20 m lunge walk (dumbbells)
B1. $-8 x$ pull up
B2. $-8 \times$ military press (dumbbells)
B3. $-8 x$ deadlift (barbell)
C1. -8 x arm curls (dumbbells)
C2. $-8 x$ triceps press (dumbbell)
C3. $-20 x$ side pulls (dumbbell)

- Med-Ball Core Circuit: 60 seconds each:
-drop push (physio-ball)
-inchworm rollout/back (med-ball)
-ball pass (physio-ball)
-dbl-leg hamstring curl (physio-ball)
-overhead rainbow (med-ball)
-down-plank tuck (physio-ball)
-alternate leg v-up toe tap (med-ball) -back extension-hands under chin (physio ball) -straight-leg twist (physio ball)
-sit-up wood chop (med-ball)


## B: CIRCUIT

- Weight Circuit: 3 sets. MAX weight!:

A1. -8 x pushup row (dumbbells)
A2. $-8 x$ bent fly (dumbbell)
A3. $-8 x$ full squat (barbell)
B1. $-8 x$ pull up
B2. $-8 \times$ straight arm raise matrix (dumbbells)
B3. $-8 x$ kettle bell swing (kettle bell)
C1. $-20 \times$ Russian twists (plate)
C2. -60 second running arms (dumbbells)
C3. $-8 \times$ pillar dips (dumbbell)

## - Med-Ball Core Circuit: 60 seconds each:

-drop push (physio-ball)
-inchworm rollout/back (med-ball)
-ball pass (physio-ball)
-dbl-leg hamstring curl (physio-ball)
-overhead rainbow (med-ball)
-down-plank tuck (physio-ball)
-alternate leg v-up toe tap (med-ball)
-back extension-hands under chin (physio ball)
-straight-leg twist (physio ball)
-sit-up wood chop (med-ball)

| SUN | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SAT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NOVEMBER 26 | 27 <br> PM: <br> Fitness warm up B 20 min . RECOVERY RUN (RPE $=3.5$ ). | 28 <br> PM: <br> 25 min. RECOVERY RUN $(R P E=3.5) .$ | 29 <br> PM: <br> Fitness warm up A <br> 20 min . RECOVERY RUN (RPE = <br> 3.5).. <br> Fitness cool down | 30 <br> PM: <br> Fitness warm up B 30 min . RECOVERY RUN (RPE $=$ 3.5).. <br> Fitness cool down | DECEMBER 1 <br> PM: <br> Fitness warm up A 20 min. RECOVERY RUN (RPE = 3.5).. <br> Fitness cool down | 2 <br> AM: <br> LSD 40min (RPE = 4.5). |
| december 3 | 4 <br> PM: <br> Fitness warm up B 20-30 min. RECOVERY RUN (RPE = 3.5).. | 5 <br> PM: <br> 35 min . RECOVERY RUN $(\mathrm{RPE}=3.5) . .$ | 6 <br> PM: <br> Fitness warm up A 25-30 min. RECOVERY RUN (RPE = 3.5).. <br> Fitness cool down | 7 <br> PM: <br> Fitness warm up B 25-30 min. RECOVERY RUN (RPE $=3.5$ ). <br> Fitness cool down | 8 <br> PM: <br> Fitness warm up A 20-30 min. RECOVERY RUN (RPE = 3.5).. <br> Fitness cool down | 9 <br> AM: <br> LSD $40 \min ($ RPE $=4.5)$. |
| december 10 | 11 <br> PM: <br> Fitness warm up B 30-40 min. RECOVERY RUN (RPE = 3.5).. | 12 <br> PM: <br> LSD 40min (RPE = 4.5). | 13 <br> PM: <br> Fitness warm up A 25-30 min. RECOVERY RUN ( $R P E=3.5$ ). <br> Fitness cool down <br> $2 \times$ Strength circuit. | 14 <br> PM: <br> Fitness warm up B <br> 25-30 min. RECOVERY RUN (RPE $=3.5$ ).. <br> Fitness cool down | 15 <br> PM: <br> Fitness warm up A 20-30 min. RECOVERY RUN ( $R P E=3.5$ ). <br> Fitness cool down <br> $2 \times$ Gen Strength circuit. | $16$ <br> AM: <br> LSD 40-50+min (RPE $=$ 4.5). |
| DECEMBER 17 | 18 <br> PM: <br> Fitness warm up $B$ $30-40 \mathrm{~min}$. RECOVERY RUN (RPE $=$ 3.5).. <br> $3 \times$ Strength circuit. | 19 <br> PM: <br> Fitness warm up A <br> LSD $40 \mathrm{~min}($ RPE $=4.5)$. <br> Fitness cool down <br> $2 \times$ Leg Strength Circuit. | 20 <br> PM: <br> Fitness warm up A <br> 25-35 min. RECOVERY RUN <br> (RPE = 3.5).. <br> Fitness cool down <br> $3 \times$ Strength circuit. | 21 <br> PM: <br> Fitness warm up B 40 min . RECOVERY RUN (RPE = 3.5).. <br> Fitness cool down <br> $2 \times$ Leg Strength Circuit. | 22 <br> PM: <br> Fitness warm up A 25-35 min. RECOVERY RUN ( $\mathrm{RPE}=3.5$ ).. <br> $4 \times 100 \mathrm{~m}$ STRIDES <br> Fitness cool down <br> $3 \times$ Strength circuit. | 23 <br> AM: <br> LSD 50-60+min (RPE $=$ 4.5). |
| DECEMBER 24 | 25 NO SCHOOL <br> AM: <br> Fitness warm up B <br> 30-40 min. EASY RUN (RPE = 4). <br> $4 \times 30 \mathrm{sec}$. surge to 1600 m pace w/ 30 sec. jog after each (RPE =9). <br> $3 \times$ Strength circuit. <br> PM: <br> 10 min . RECOVERY RUN. <br> Med-Ball Core Circuit A | $\begin{aligned} & 26 \quad \text { NO SCHOOL } \\ & \text { AM: } \\ & \text { LSD on Rim Trail } 50-65 \mathrm{~min} \\ & \text { (RPE }=4.5 . \\ & 3 \times \text { Leg Strength Circuit. } \end{aligned}$ | 27 <br> NO SCHOOL <br> AM: <br> Fitness warm up A <br> 30-40 min. RECOVERY RUN <br> ( $R P E=3.5$ ). <br> Fitness cool down <br> $3 \times$ Strength circuit. <br> PM: <br> 10 min . RECOVERY RUN. <br> Med-Ball Core Circuit A | $28 \quad$ NO SCHOOL AM: Fitness warm up B 45 min. random FARTLEK RUN (RPE $=4-9$ ). Fitness cool down $3 \times$ Leg Strength Circuit. | 29 <br> NO SCHOOL <br> AM: <br> Fitness warm up A 25-35 min. RECOVERY RUN (RPE = 3.5).. <br> $6 \times 100 \mathrm{~m}$ STRIDES <br> Fitness cool down <br> $3 \times$ Strength circuit. <br> PM: <br> 10 min . RECOVERY RUN. Med-Ball Core Circuit B | 31 <br> AM: 9:00am <br> @ 1907 Bear Creek Rd. <br> Lafayette. <br> LSD 55-65+min (RPE = 4.5). |
| DECEMBER 31 | JANUARY 1 NO SCHOOL <br> AM: <br> Fitness warm up B <br> $30-40 \mathrm{~min}$. EASY RUN (RPE = 4). <br> $6 \times 30 \mathrm{sec}$. surge to 1600 m pace w/30 <br> sec. jog after each (RPE =9). <br> $3 \times$ Strength circuit. <br> PM: <br> 15 min . RECOVERY RUN. <br> Med-Ball Core Circuit A | $\begin{aligned} & 2 \\ & \text { AM: } \quad \text { NO SCHOOL } \\ & \text { LSD } 50-65 \mathrm{~min}(\text { RPE }=4.5 . \\ & 3 \times \text { Leg Strength Circuit. } \end{aligned}$ | 3 <br> NO SCHOOL <br> AM: <br> Fitness warm up A <br> 30-40 min. RECOVERY RUN (RPE $=3.5$ ). <br> Fitness cool down <br> $3 \times$ Strength circuit. <br> PM: <br> 15 min . RECOVERY RUN. <br> Med-Ball Core Circuit A | $4 \quad$ NO SCHOOL AM: Fitness warm up B 50 min. random FARTLEK RUN (RPE 4-9). Fitness cool down $3 \times$ Leg Strength Circuit. | 5 <br> NO SCHOOL <br> AM: <br> Fitness warm up A 30-40 min. RECOVERY RUN ( $\mathrm{RPE}=3.5$ ).. <br> $6 \times 100 \mathrm{~m}$ STRIDES <br> Fitness cool down <br> $3 \times$ Strength circuit. <br> PM: <br> 15 min . RECOVERY RUN. Med-Ball Core Circuit B | 6 <br> AM: 9:00am <br> @ Redwood Park, Oakland. <br> LSD 60-70+min (RPE = 4.5). |
| JANUARY 7 | 8 <br> AM: <br> 15 min . RECOVERY RUN. <br> Med-Ball Core Circuit A <br> PM: <br> Performance warm up 20 min . EASY RUN. <br> $3-4 \times 2 \mathrm{~min}$. easy, 3 min . 20k pace, 1 min . easy, 1 min . 10 k pace ( $\mathrm{RPE}=6-7$ ). $3 \times 40 \mathrm{sec}$ @ 800 m pace w/ 80 sec . jog after each (RPE =9.5). <br> 10 min . EASY RUN. <br> Performance cool down <br> $3 \times$ Strength circuit. | 9 <br> PM: <br> Fitness warm up B LSD on Rim Trail 55-70 min (RPE $=4.5$. <br> $3 \times$ Leg Strength Circuit. | 10 <br> AM: <br> 15 min . RECOVERY RUN. <br> Med-Ball Core Circuit A <br> PM: <br> Fitness warm up A <br> $35-45 \mathrm{~min}$. RECOVERY RUN <br> (RPE $=3.5$ ). <br> Fitness cool down <br> $3 \times$ Strength circuit. | 11 <br> PM: <br> Performance warm up 30 min . EASY RUN. <br> $4 \times 2 \mathrm{~min}$ @ 10 k pace w/ 60 sec . jog recovery after each (RPE = 7)., $4 \times 60$ sec. @ 1600 pace w/ 60 sec. og recovery after each (RPE =9). <br> 10 min . EASY RUN. <br> Performance cool down <br> $3 \times$ Leg Strength Circuit. | 12 <br> AM: <br> 15 min . RECOVERY RUN. <br> Med-Ball Core Circuit B <br> PM: <br> Fitness warm up A $30-40 \mathrm{~min}$. RECOVERY RUN (RPE $=3.5$ ). <br> $8 \times 100 \mathrm{~m}$ STRIDES <br> Fitness cool down <br> $3 \times$ Strength circuit. | 13 <br> AM: 9:00am <br> @ 1907 Bear Creek Rd. Lafayette. <br> LSD 65-75+min (RPE = 4.5). |
| JANUARY 14 | 15 <br> NO SCHOOL <br> AM: <br> Performance warm up 20 min . EASY RUN. <br> 25 min . PROGRESSION RUN: EASY to 10k pace (RPE $=4-7$ ). <br> $6 \times 30 \mathrm{sec}$. surge to 1600 m pace w/ 30 <br> sec. jog after each (RPE = 9). <br> 10 min . EASY RUN. <br> Performance cool down <br> $3 \times$ Strength circuit. <br> PM: <br> 20 min . RECOVERY RUN. <br> Med-Ball Core Circuit A | 16 <br> PM: <br> Fitness warm up B LSD 60-75 min (RPE $=4.5$. $3 \times$ Leg Strength Circuit. | 17 <br> AM: <br> 20 min . RECOVERY RUN. <br> Med-Ball Core Circuit A <br> PM: <br> Fitness warm up A $35-45 \mathrm{~min}$. RECOVERY RUN (RPE = 3.5).. <br> Fitness cool down <br> $3 \times$ Strength circuit. | 18 <br> PM: <br> Performance warm up 20 min . EASY RUN. <br> $6-8 \times 150 \mathrm{~m}$ HILL reps @ 90\% Max <br> Effort w/ jog recovery after each (RPE =9). <br> 10 min . EASY RUN. <br> Performance cool down <br> $3 \times$ Leg Strength Circuit. | 19 <br> AM: <br> 20 min . RECOVERY RUN. <br> Med-Ball Core Circuit B <br> PM: <br> Fitness warm up A 35-45 min. RECOVERY RUN (RPE $=3.5)$.. <br> $8 \times 100 \mathrm{~m}$ STRIDES <br> Fitness cool down <br> $3 \times$ Strength circuit. | 20 <br> AM: 9:00am <br> @ Redwood Park, Oakland. <br> LSD 70-80+min (RPE $=$ 4.5). |
| JANUARY 21 | 22 <br> AM: <br> 20 min . RECOVERY RUN. <br> Med-Ball Core Circuit A <br> PM: <br> Performance warm up 20 min . EASY RUN. <br> $3 \times 2 \mathrm{~min}$. easy, 5 min . 20k pace, 1 min . easy, 1 min . 10k pace (RPE $=6-7$ ). $3 \times 40 \mathrm{sec}$ @ 800 m pace w/ 80 sec . jog after each $($ RPE $=8.5)$. <br> 10 min . EASY RUN. <br> Performance cool down <br> $3 \times$ Strength circuit. | 23 <br> PM: <br> Fitness warm up B LSD on Rim Trail 60-75 min (RPE $=4.5$. <br> $3 \times$ Leg Strength Circuit. | 24 <br> AM: <br> 20 min . RECOVERY RUN. <br> Med-Ball Core Circuit A <br> PM: <br> Fitness warm up A 40-50 min. RECOVERY RUN (RPE = 3.5).. <br> Fitness cool down <br> $3 \times$ Strength circuit. | 25 <br> PM: <br> Performance warm up 30 min . EASY RUN. <br> $4 \times 2 \mathrm{~min}$ @ 10 k pace w/ 60 sec . jog recovery after each ( $\mathrm{RPE}=7$ ), 4 $\times 60 \mathrm{sec}$. @ 1600 pace w/ 60 sec. og recovery after each (RPE =9). <br> 10 min . EASY RUN. <br> Performance cool down <br> $3 \times$ Leg Strength Circuit. | 26 <br> AM: <br> 20 min . RECOVERY RUN. <br> Med-Ball Core Circuit B <br> PM: 3 <br> Fitness warm up A 35-45 min. RECOVERY RUN (RPE = 3.5).. <br> $10 \times 100 \mathrm{~m}$ STRIDES <br> Fitness cool down <br> $3 \times$ Strength circuit. | 27 <br> AM: 9:00am <br> @ 1907 Bear Creek Rd. <br> Lafayette. <br> LSD 80-90+min (RPE $=$ 4.5). |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| JANUARY 28 | 29 <br> AM: <br> 20 min . RECOVERY RUN. <br> Med-Ball Core Circuit A <br> PM: <br> Performance warm up <br> 20 min . EASY RUN. <br> 30 min . PROGRESSION RUN: EASY to <br> 10k pace (RPE $=4-7$ ). <br> $6 \times 30 \mathrm{sec}$. surge to 1600 m pace w/ 30 <br> sec. jog after each (RPE =9). <br> 10 min . EASY RUN. <br> Performance cool down <br> $3 \times$ Strength circuit. | 30 <br> PM: <br> Fitness warm up B LSD 60-75 min (RPE = 4.5). $3 \times$ Leg Strength Circuit. | 31 <br> AM: <br> 20 min . RECOVERY RUN. <br> Med-Ball Core Circuit A <br> PM: <br> Fitness warm up A 40-50 min. RECOVERY RUN ( $R P E=3.5$ ). <br> Fitness cool down <br> $3 \times$ Strength circuit. | FEBRUARY 1 <br> PM: <br> Performance warm up <br> 20 min . EASY RUN. <br> B-10 x 150 m HILL reps @ $90 \%$ Max <br> Effort w/ jog recovery btwn each $(\mathrm{RPE}=9)$ <br> 10 min . EASY RUN. <br> Performance cool down <br> $3 \times$ Leg Strength Circuit. | 2 <br> AM: <br> 20 min . RECOVERY RUN. <br> Med-Ball Core Circuit B <br> PM: <br> Fitness warm up A 35-45 min. RECOVERY RUN (RPE = 3.5).. <br> $10 \times 100 \mathrm{~m}$ STRIDES <br> Fitness cool down <br> $3 \times$ Strength circuit. | 3 <br> AM: 9:00am <br> @ Redwood Park, Oakland. <br> LSD 80-90+min (RPE = 4.5). |

## PACE EXPLANATIONS:

RPE: Rate of Perceived Exertion. We will often discuss training paces using a scale from $1-10$, with 1 being walking effort and 10 being maximal sprint effort.

RECOVERY: RPE $=3.5$; This is approximately 2 minutes slower per mile than 5 k date pace. For example, an athlete with a 5 k date pace of 6 minutes per mile should run at a velocity of about 8 minutes per mile for RECOVERY effort. These runs can range in length from 25 to 50 minutes. The objective of a RECOVERY run is to provide gentle aerobic stimuli with minimal musculoskeletal stress in order to promote optimal tissue repair. While "jogging" is often synonymous with careless, mechanically inefficient movement patters, RECOVERY pace running should be conducted with mindful mechanical efficiency in order to reinforce optimal movement patterns.

EASY: RPE = 3-4; This is similar to RECOVERY run effort. EASY pace running is used prior to, following, and/or in between higher intensity efforts like workout segments or races. Preceding a workout or race, athletes should begin at a PRE of 3 and gradually increase effort to a 4 over the course of the proscribed run time. Following or in between higher intensity efforts, athletes should begin at a PRE of 4 and either maintain or gradually reduce effort to a 3 over the course of the proscribed run time. Note: While "jogging" is often synonymous with careless, mechanically inefficient movement patters, EASY pace running should be conducted with mindful mechanical efficiency in order to reinforce optimal movement patterns.

LSD: RPE = 4.5; This is aerobic development pace, slightly higher in intensity than RECOVERY and EASY effort running. The purpose of Long Sustained Distance running of 40 to 90 minutes in duration is to stimulate adaptive response in various aerobic pathways, including cardio-vascular power and efficiency, mitochondrial density and efficiency, metabolic efficiency, muscle fiber size, and fatigue resistance. Given that the largest energy contribution comes from the aerobic system for races of 800 m or longer, LSD paced running is the cornerstone of distance training. Extending the length of the Long Sustained Paced run over the course of the season and over the course of the high school career is essential for reaching endurance performance potential.

20k: RPE = 6; Often called "threshold" effort, this pace is about 30 seconds per mile slower than $5 k$ date pace. It should be the fastest pace you can sustain for about a half-marathon ( 13 miles). This is the running effort at which the aerobic system is no longer able to supply the necessary energy to sustain the pace. This effort level creeps just beyond the "aerobic threshold", the point at which lactate acid levels in the blood stream begin to increase. 20k paced running should feel "comfortably quick", allowing maintenance of breathing rhythm and sustained mental focus. Only slightly faster than LSD pace, you should be able to sustain 20k pace with only slightly more effort and recover from it quickly. In segmented training, a rest interval of 1 minute should be sufficient. Training at this pace promotes improved lactate recycling and fatigue buffering. These adaptations allow you to sustain faster paces for longer durations.

10k: RPE = 7; Known to some as "critical velocity" (CV), this pace is about 15 seconds per mile slower than 5k date pace. 10k effort is approximately $90 \%$ of 5 k effort and often used for training segments of 3 minutes in duration with relatively short recovery. Training at this pace is optimal for increasing the oxidative capacity of type II muscle fibers and improving stamina at higher velocities. This velocity is particularly beneficial due to the high adaptive stimulus with relatively low musculoskeletal stress.
$\mathbf{5 k}$ : RPE = 8; This pace is approaching the VO2max window, wherein sustained effort becomes noticeably more difficult. Training at this pace stimulates adaptive response to the various pathways responsible for oxygen utilization and mechanical efficiency with more significant stress on the musculoskeletal system.

3200m, 1600m \& 800m: RPE = 8.5-9.5; VO2max pace and sub-VO2max pace training. These training efforts are useful for reaching potential oxygen utilization capacity as well as developing and optimizing neuromuscular pathways, running economy, and power. In addition, training at these race paces is critical for developing race-pace awareness and race-specific mental endurance. These paces are most stressful to the musculoskeletal system and therefore account for the smallest fraction of total volume over the training cycle.

