



COACHING THE 400-800 ATHLETE

INSPIRATIONS & INFLUENCERS

- Ty Axtman
- Ryan Banta
- **Anders Brooker**
- Renato Canova
- Scott Christensen
- **Diane Cummins**
- Jack Daniels
- Eric Dettman
- **Shannon Flynn**
- Ron Grigg
- Andrea Grove-McDonough
- Tony Holler
- Mihaly Igloi
- **Casey Jermyn**
- Jay Johnson
- Vin Lananna
- Steve Magness
- Marie Markham
- **LaRyn Martin**
- John O'Leary
- John O'Malley
- Dan Pfaff
- **Tom Raunig**
- Tom Rothenberger
- **Jesse Rumsey**
- Tom Schwartz
- Mike Smith
- Diljeet Taylor
- Shannon Thompson
- **Rich Willy**

NOTABLE ATHLETES

■ **Carly Smiedala, 2016**

- 200: 26.08, 10th All-Time HHS
- 400: 56.13, 2nd All-Time HHS
- 800: 2:08.52, School Record
- *1600: 5:04.24, 2nd All-Time HHS

■ **Odessa Zentz, 2022**

- 200: 25.07, School Record
- 400: 56.02, School Record
- 800: 2:12.55, 2nd All-Time HHS
- 1600: 5:18.75, 13th All-Time HHS

■ **Hazel Bishop, 2026**

- 200: 26.07, 9th All-Time HHS
- 400: 58.57, 7th All-Time HHS
- 800: 2:20.43, 8th All-Time HHS

■ **Ryan Maus, 2024**

- 400: 51.95, 17th All-Time HHS
- 800: 1:59.72, 11th All-Time HHS

■ **Aaron French, 2024 (JCHS)**

- 400: 51.14, 12th All-Time HHS
- 800: 1:55.80, 6th All-Time HHS

■ **Carly Ryan, 2022 - Hybrid**

- 400: 1:00.59, 17th All-Time HHS
- 800: 2:18.56, 4th All-Time HHS
- 1600: 5:19.08, 14th All-Time HHS

■ **Henry Ballinger, 2023 - Hybrid**

- 400: 50.39, 7th All-Time HHS
- 800: 1:53.28, School Record
- 1600: 4:19.82, School Record

Note: Carly and Henry, and several others over the years, have moved between training groups as needed to support their abilities and goals.

ATHLETE ID

- **How do you know if you have one of these athletes?**
 - Sprinter? Maybe. Distance runner? Maybe/Maybe not.
 - Often come from soccer (other endurance-based team sports) and have an early interest in 200 and 400.
 - Elastic and athletic.
 - They LOVE to run fast and tend to LOVE being on the track.

ATHLETE ID

- **Closely observe how your athletes handle certain types of training.**
 - Struggle with or do not like longer reps.
 - May not enjoy going out for a long run or even a recovery run.
 - Jogging recoveries are especially difficult for these athletes in most cases.
 - Often struggle with pace and effort control; must be taught and learned.
 - When training with true sprinters, look better in comparison toward the end of the workout.
 - When training with long distance runners, tend to tail off or look rough at the end of a workout.

SO YOU HAVE ONE, NOW WHAT?



Athlete Mindset

They need to be prepared to think and train differently whether they're coming from the speed end or endurance end. Buy-in is vital, so developing a relationship built on trust and curiosity will pay dividends with patience.



Coach Mindset

Distance coaches need to learn to think like a sprint coach to work with these athletes and serve them appropriately. You must learn to speak like a sprint coach and speak like a distance coach.

- It's OK to create your own language.
- But make sure you're consistent with language.

KEY CONCEPTS

- **Moderation and Consistency**
 - King and Queen
- Gotta **run fast to race fast**, but don't forget the aerobic system.
 - **400** – Male 40% aerobic, 60% anaerobic; Female 45% aerobic, 55% anaerobic
 - **800** – Male 60% aerobic, 40% anaerobic; Female 70% aerobic, 30% anaerobic
- **Challenging and fun**
 - Often a difficult event group to coach because of the training and mindset required.
 - Balancing the energy demands in terms of training design allows for a lot of experimentation and variation.
- **Curiosity**
 - Forces distance coaches out of their comfort zone. Keep an open mind.
 - Athletes must get out of their comfort zone. Keep an open mind.

CHAMPIONSHIP CLIMATE

A common mistake among those who work in sport is spending a disproportional amount of time on X's and O's as compared to the time spent learning about people.

Mike Krzyzewski

CHAMPIONSHIP CLIMATE

■ Excellence

- Doing the best you can, with what you have, where you are.
- Consistency in life leads to consistency in training, which leads to consistency in competition.
- Celebrate every victory, no matter how small.

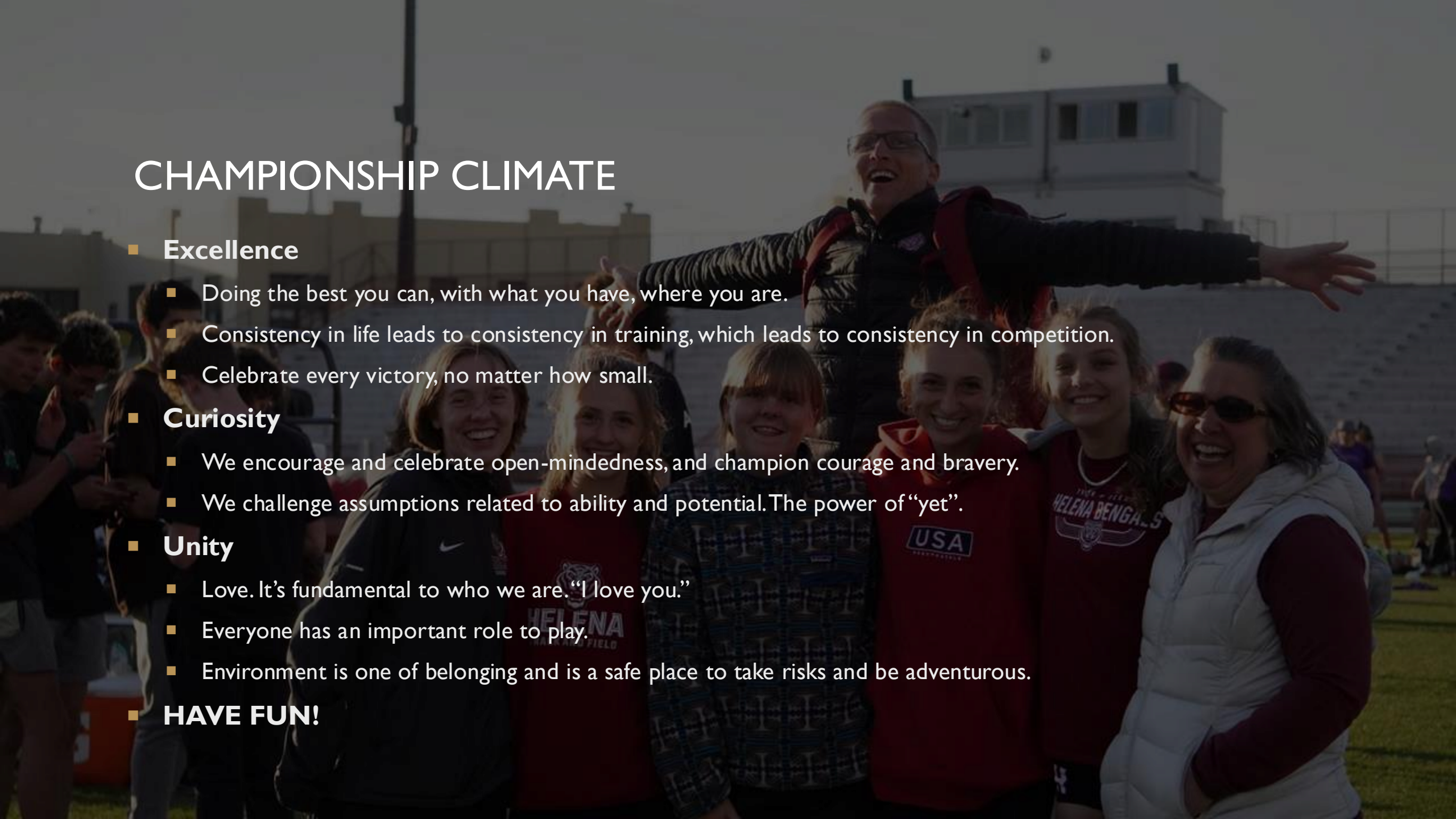
■ Curiosity

- We encourage and celebrate open-mindedness, and champion courage and bravery.
- We challenge assumptions related to ability and potential. The power of “yet”.

■ Unity

- Love. It’s fundamental to who we are. “I love you.”
- Everyone has an important role to play.
- Environment is one of belonging and is a safe place to take risks and be adventurous.

■ **HAVE FUN!**



THE MENTAL SIDE OF HIGH PERFORMANCE

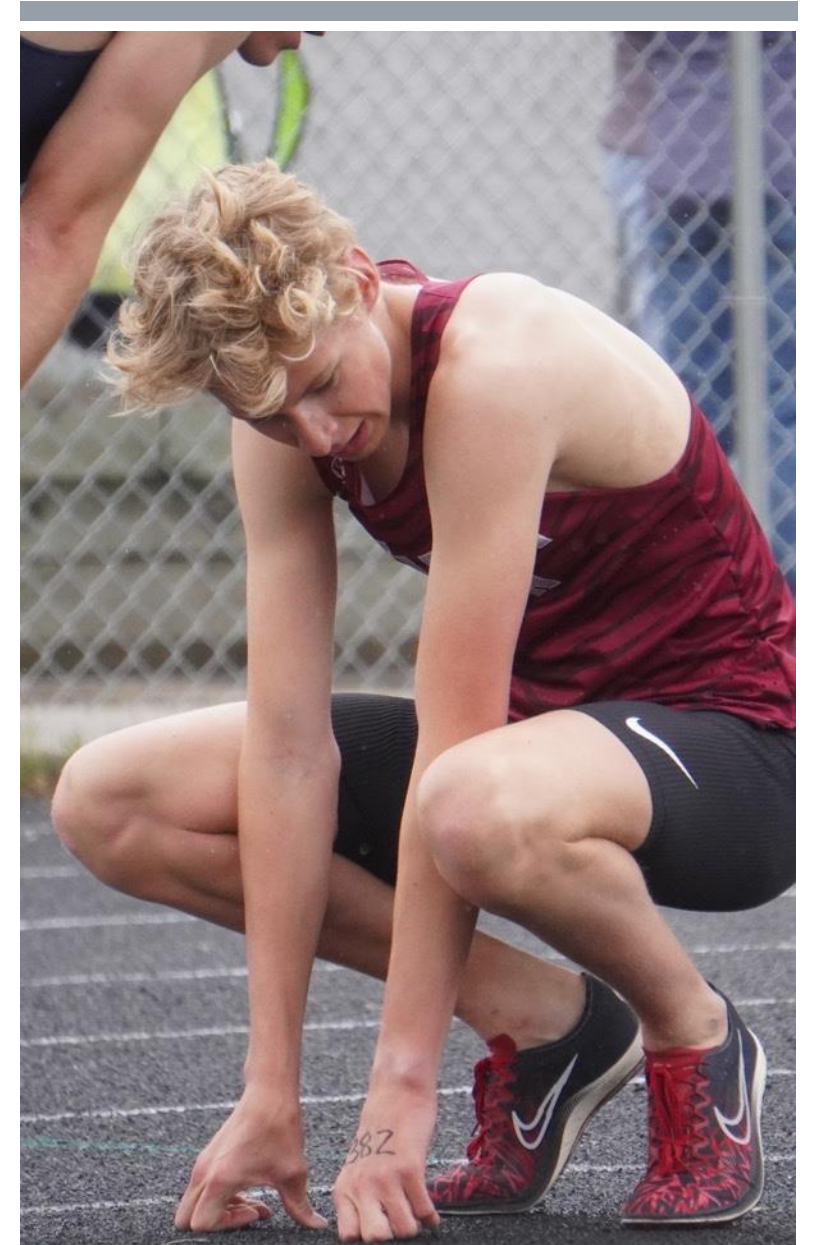
- **Shannon Thompson, Mental Performance Counselor**
 - Hypo2Sport
 - NAU Cross Country, Track and Field
 - Team Intensives, Focus Sessions
 - Started in 2023
 - Scheduled again in 2024
- **Key strategies of Shannon's we use**
 - Who do you want to be?
 - Loose race plan
 - "I get to" vs. "I have to"
 - Beathing Meditation and Visualization

*You have power over your
mind, not outside events.
Realize this, and you will
find strength.*

Marcus Aurelius

PAIN – WHAT TO DO ABOUT IT

- **Pain in the 400 and 800 – Normalize it.**
 - Often arrives around 150-250 in the 400
 - Often arrives around 450-550 in the 800
- **What to do? Some ideas:**
 - Embrace the pain. Don't fight the pain (it's not going away).
 - Use a breathing meditation to calm nerves and visualize prior to race.
 - Sense the pain arriving and visualize a positive response, such as re-focusing on actions.
 - Use training to prime a positive response and focus on controllables.
 - Loose race plan – Keep it simple (Shannon Thompson)
 - What actions can you take?
 - What are you telling yourself?
 - If all else fails.
 - Mantras
 - Positive self-talk. Who do you want to be?



COMPETE!

- **Let go of outcomes. Focus on the race you're in.**
 - What is the race you're in? It depends.
 - Let go of worrying about what might happen and instead focus on what you are going to do to make it happen.
 - Focus on the present and what's in your control.
 - Loose race plan.
 - Chunking. Breaking the race into smaller pieces.
 - Compete with the bodies around you.
 - Focus on effort.
 - Respond, don't react. (Practice in practice.)
 - Time and place are not entirely within your control.

The mindset isn't about seeking a result – it's more about the process of getting to that result. It's about the journey and the approach. It's a way of life.

Kobe Bryant



TRAINING PACES

■ Aerobic

- Easy/Recovery (No shuffling)
- Tempo (Sub LT, LT)
- 10K
- 5K
- 3200
- 1600

■ Speed

- 200
- Acceleration and Max Speed
- Speed Technique

■ Specific

- 800
- 400

PUTTING IT ALL TOGETHER

- **General to specific**
 - Similar to middle distance and long distance development, but reassessing what is general to begin journey.
 - Canova/Funnel Approach
 - O'Malley: "Everything is always present."
- **Programming Training**
 - Hard-easy model shaken up a bit as different training demands allow for some "stacking" or "blending"
 - **Example A:** High neurological demand (max speed) can be followed 24 hours later by high aerobic demand.
 - **Example B:** Hitting multiple demands in one creative mixed-pace session.
- **General to Specific Aerobic End** = Sub Tempo – Tempo – Critical Velocity – 5K – 3200 – 1600 – 800/400
- **General to Specific Speed End** = Speed Technique – Acceleration – Max Speed – 200 – 400/800

PUTTING IT ALL TOGETHER

- **Easy runs or recovery runs are not necessary, but can be used:**
 - If the athlete enjoys them.
 - If they can accomplish these runs using proper mechanics.
 - If they aren't simply going through the motions.
 - If athletes need a change to the routine.





PUTTING IT ALL TOGETHER

- **Activation/Warmup is part of training and is specific to training**
 - Opportunity to add variety to training and build general athleticism.
 - Part of overall training volume.
- **De-Activation/Cooldown is part of training and is consistent**
- **Strength**

ACTIVATION COMPONENTS

■ **Mobility**

- Dynamic movement
- Range of motion
 - Rope Stretching
 - Groundwork (Sneaky core work)
 - Leg Swings
 - Band work (Sneaky strength that engages smaller muscle groups)

■ **Coordination**

- Biomechanic drills
- Skips
- Plyometrics
- Wickets
- Games

■ **Priming the system**

- Done prior to all interval and repetition workouts.
- We don't do this prior to aerobic work at Tempo/CV/5K Variations.
- 1.5 miles w/last 800 at T effort
- 3 x 150 (50 @ 800, 50 @ 400, 50 @ 800)
- 3 x 120 @ 800 or 3 x 75 @ 400, depending on workout

DE-ACTIVATION COMPONENTS

■ **Cooldown Run? Maybe Not.**

- Sometimes, depending on athlete and focus of session
- Never used to add volume
- Descending strides 10 x 100
 - 2 x 1600
 - 2 x 3200
 - 2 x 5K
 - 2 x CV
 - 2 x Tempo
 - Follow with 800 easy

■ **Mobility**

- Dynamic movement
- Range of motion
 - Knee pulls, Hamstring extensions, Quad pulls (from rope stretching)
 - Iron Cross, Scorpion, Groiners
 - Yoga sequence: Downward Dog, Cobra, Child Pose, Tick-Tocks
 - After intense sessions, we periodically close with a breathing exercise for 5 minutes.

STRENGTH

■ When?

- On hard days
 - During foundational phase, can move to accommodate athlete schedule
 - Replace with bodyweight if not able
- Two sessions per week
- Weight room
 - Twice per week in foundational phase
 - Once per week in competition phase
 - Bodyweight or once in championship phase

■ Bodyweight

- Lunge Matrix
 - 2 x 5 each leg
- Pushups to Plank
 - Work up to 2 x 30 seconds
- Bridge Hip Thrust
 - 2 x 5 each leg
- Standard Pushups
 - 20 (can break into sets if needed)
- Squats (insert jump on odd numbers)
 - 2 x 10
- Single Leg RDL
 - 1 x 10 each leg
- Calf Raises
 - 2 x 15 each leg (eccentric)

■ Weight Room

- Deadlift
 - 2-3 x 4-6
- Three-Way Shoulder Press
 - 2 x 8-10
- Half Squat
 - 2-3 x 4-6
- Dumbbell Rows
 - 2 x 8-10
- Bulgarian Lunge
 - 2-3 x 4-6
- Calf Raises
 - 2 x 15 each leg (eccentric)
- Waiter Walks & Horse Stance
 - Kettle Bell or Dumbbell arm @ 90

TRAINING CALENDAR

■ **Macrocycle**

- 6 months, unless in a winter sport
 - December, January, February, March, April, May
- Separate plan for winter sport athletes, transitioning with shorter Foundational/General and Competition Phase

■ **Mesocycles**

- Foundational/General
 - 3 months: December, January, February
- Competition
 - 2 months: March, April
- Championship
 - 1 month: May

■ **Microcycle**

- 7 days in Foundational/General Mesocycles; 14 days in Competition and Championship Mesocycles
- Mixed Pace becomes a consistent theme in Competition and Championship Mesocycles
- Hard to fit everything you need into a single week once the racing begins
- Racing covers some of the training requirements; Plan that way to take advantage of a busy season.

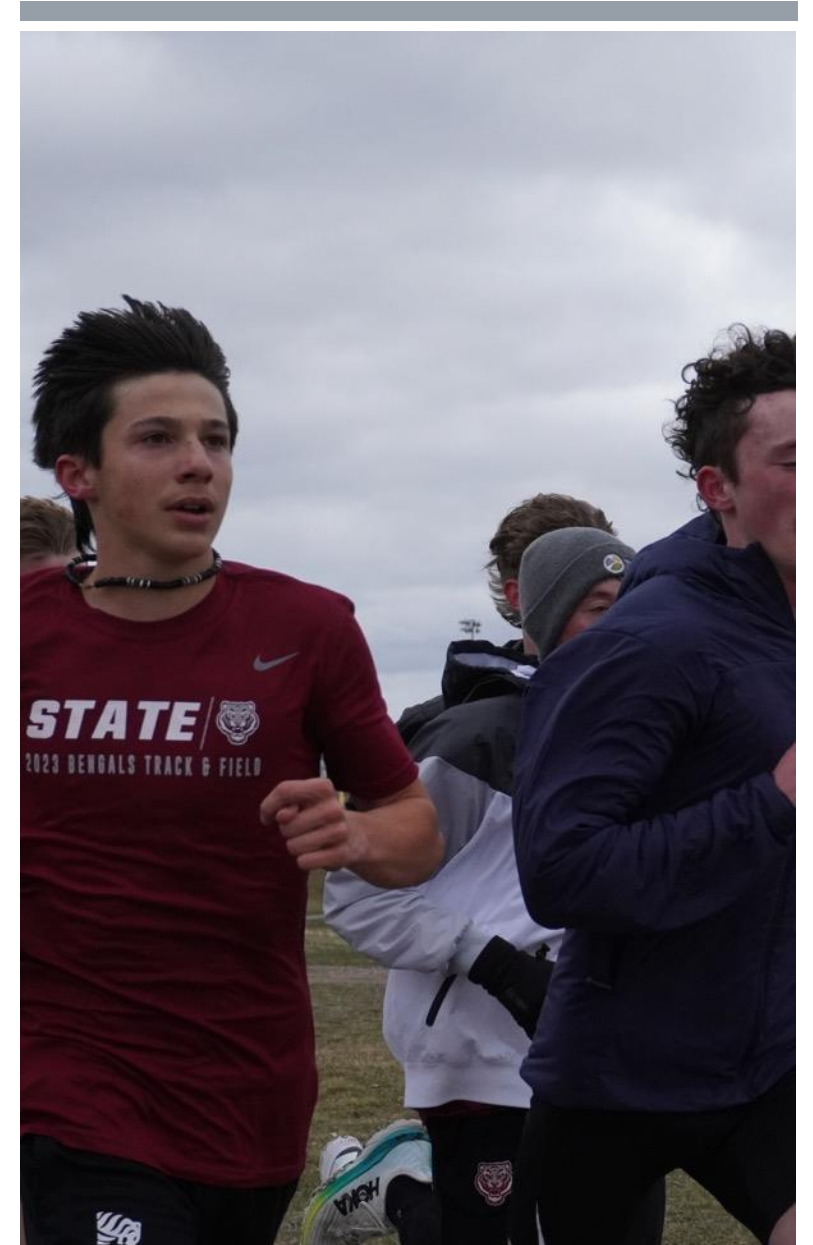


THE JOURNEY

- Training calendar is a map.
- Coaches are the GPS.
- Route may change.
- Detours are often common on an exciting and safe journey.
- Goal of GPS is to help athletes arrive at their destination.
- Map and GPS are not perfect.

FOUNDATIONAL/GENERAL PHASE

- **Physical Adaptation to Running**
 - Especially important for athletes who didn't participate in cross country.
- **General to Specific**
 - 1. Sub T/Tempo/CV and Technique/Acceleration/Max Speed (1.5-months)
 - 2. Tempo/CV and Acceleration/Max Speed/200 (1.5-month focus)
 - 3. CV/5K and Max Speed/200/400 (1 month focus; overlap with competition)
- **Competition Overlap**
 - Indoor races add some fun to doldrums of long buildup.
 - Helps athletes see where they're at without specific training.
 - Reinforces belief in importance of general adaptations.





COMPETITION PHASE

- **Foundational Overlap**

- Indoor races
- Begin competition phase with time trials which adds to overlap.
- Allows athletes to see what foundational phase provided them.
- Allows winter sport athletes opportunity to build appropriately.

- **General to Specific**

- 1. Tempo/CV/5K and Max Speed/200/400 (1-month focus; overlap with foundational/general)
- 2. CV/5K/3200 and 200/400/800 (1-month focus)

CHAMPIONSHIP PHASE

■ **Competition Overlap**

- Art of Coaching
 - Close observation will help you determine what athletes need.
 - Race evaluation: Where are they strong, where are they breaking down?
 - Optimal time for final adjustments to training before its too late.
 - Often time to determine whether there should be a focus on one event, two, or more (rare).
 - Not always perfect, so be patient with athletes and kind to yourself.

■ **General to Specific**

- 1. CV/5K/3200 and 200/400/800 (2-week focus)
- 2. 5K/3200/1600 and Max Speed/200 and Competition (2-week focus)



GENERAL AEROBIC DEVELOPMENT

■ What about recovery/easy runs?

- If athletes do well, ensure form isn't breaking down to determine appropriate distance.
 - When in doubt do less and go from there.
- Struggle with recovery runs? Do **paced runs** on the track first.
 - Start at 10 minutes, work up to 15 minutes, then 20 minutes.
 - Run these about 1:45-2:00 slower than 1600 pace.
 - A little slower if going 15 or 20 minutes in duration.
 - Graduate to recovery runs,
 - Patience

■ Using the track and/or repeats

- These athletes often struggle with pace control.
 - Teaches even splits and pace control.
 - Break it down by 100s, then 200s, then full lap.
- Will feel slow for them at first but is challenging.
- Quality usually superior for long reps.
- Easily observable, coaches' eye.
- Can make adjustments on the fly.
- Shorter reps are more manageable.
- Athletes can be successful, empowering.

GENERAL AEROBIC SUPPORT – FOUNDATIONAL

- **Aerobic Repeats**
 - **Lane 8 T, progress to CV**
 - 400 repeats
 - Run from stagger at tempo pace
 - Walk distance from finish to stagger for recovery, continuous.
 - **Partner T, progress to CV**
 - Pair equally matched runners, set off in opposite directions on a 400-800 loop, return when they meet, short rest
 - **1/2/2/2 Repeats**
 - 1K at T, 200 easy, 200 at 1600, 200 easy
 - Only advance once they can properly pace 400-800 at T
 - Considering doing 1K at CV ... haven't tried yet
- **Standard T or CV reps**
 - Often finish with something faster (200s or 150s)

SPEED TECHNIQUE, ACCELERATION, MAX SPEED – FOUNDATIONAL

■ **Wicket Drill**

- Started using this in 2016.
- Fundamental piece of our program for 9 seasons.
- Sprint version and Distance version.
- Can see mechanics shift and improve with repetition.
- Be patient and avoid stepping in.
- Cues/Reminders
 - Not a high-knee drill (athletes tend to try that)
 - Put feet down
 - Arm swing (easy to forget about your arms)
 - Chin up, eyes up

■ **Posture Drills**

- Fence drill
- A, B, C Skips
- Starts from varied positions

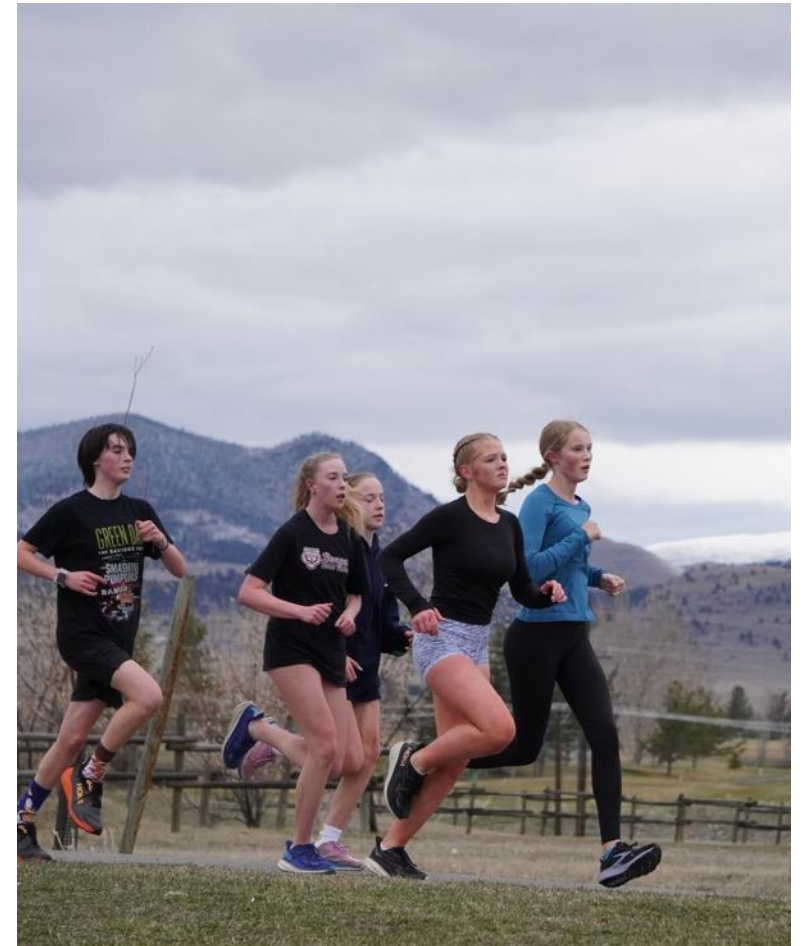
■ **Max Velocity and Acceleration**

- 200-600 meters of volume (progress)
- **General rule:** 1 minute of rest for 10 meters of sprinting
- Standing, 3-point, 4-point, block starts
- Fly 20s, 30s, 40s
- Repeat 60s
- Sprint-Float-Sprint 60s or 90s

Key to high performance in sprints is learning to stay loose/relaxed while exerting max effort. Cue and train “Loose and fast.”

GENERAL AEROBIC SUPPORT – FOUNDATIONAL/COMPETITIVE

- **Critical Velocity (10K pace)**
 - Bread and butter aerobic repeat pace for this group.
 - Better mechanical carryover vs. Tempo and slower.
 - Use Tinman calculator to determine pace.
- **Benefits of CV**
 - Kind to the body, unlike 5K pace or faster.
 - These athletes can handle it in appropriate distances.
 - 400-1K per rep w/short walking rest
 - Rest time = 25-35% of the interval duration
 - Start with 1 mile of volume and build up to 3 miles
 - Can use jogging rest as athletes develop
 - Resist going too fast, even if you feel good



SPEED ENDURANCE – FOUNDATIONAL/COMPETITIVE

■ Repeat 40-60 at max speed w/complete rest (alactic)

- 300-800 volume
- 95-98% max – Train don't strain
- 6-10 seconds per rep
- Alactic speed endurance
- Rest max or near max
- Can use hills; Safer, forces proper mechanics
- 2 x (3 x 60)
 - 6 minutes between reps
 - 10 minutes between sets
- 2 x (3 x 80)
 - 8 minutes between reps
 - 12 minutes between reps

■ Repeat 60-80 at max speed w/short rest (glycolytic)

- 300-800 volume
- 95-98% max - Train don't strain
- 6-10 seconds per rep
- Glycolytic speed endurance
- Rest short between reps, max between sets
- Can use hills; Safer, forces proper mechanics
- 2 x (4 x 60)
 - 1 minute between reps
 - 6-8 minutes between sets
- 3 x (4 x 50)
 - 1:30 between reps
 - 5 minutes between sets

DIRECT AEROBIC SUPPORT – FOUNDATIONAL/COMPETITIVE

- **400/400 In-and-Outs**
 - On 400 at 5K
 - Off 400 at jog
 - Don't speed up the rep, speed the recovery as you progress.
 - Progress to easy, then steady as fitness develops.
 - 2400-4800 volume
- **300/100 In-and Outs**
 - On 300 at 5K pace
 - Off portion at jog
 - Don't speed up the rep, speed the recovery.
 - Progress to easy, then steady as fitness develops.
 - 2400-4800 volume
- **150 with walk-in 50**
 - 150 at 3200 pace
 - 50 walk rest
 - 10-20 sets
 - 1200-3200 volume
- **200/200 In-and-Outs**
 - On 200 at 1600-3200 pace
 - Off 200 at jog
 - Don't speed up the rep, speed the recovery.
 - Progress to easy, then steady as fitness develops.
 - 1200-3200 volume
 - Can break reps into sets to make progression more manageable.

DIRECT AEROBIC SUPPORT – COMPETITIVE

- **1600 pace repeats of 200-600 meters**
 - 1600 race pace or faster, approaching 800 pace
 - Can progress volume or pace, not both at the same time.
 - 1600-2400 volume
 - 1:30-2:00 walk or jog rest
 - 8 x 200 (In-and-Out are a great transition)
 - 5 x 300
 - 4 x 400
 - 2 x (3 x 400)
 - 3 x (3 x 300)

SPECIFIC 400 – SPECIAL ENDURANCE I

- **Repeat 90-150 at max speed w/near total rest**
 - 500-1000 volume
 - 90-98% max – Train don't strain
 - 10-20 seconds per rep
 - Rest 5-10 minutes
 - 4-7 x 150
 - 10 minutes rest
 - 2 x (3-4 x 120)
 - 6 minutes between reps
 - 10 minutes between sets
- **Repeat 150-300 at max effort w/near total rest**
 - 500-1000 volume
 - 90-98% max – Train, but will feel like strain
 - 20-40 seconds per rep
 - Rest 10-15 minutes
 - 25-second drill
 - 2-3 reps
 - Mark finishing point on first one and try to match.
 - 12 minutes rest
 - 220-200-180-160-140 (900 meters)
 - 13-12-11-10 minutes rest

SPECIFIC 400 – SPECIAL ENDURANCE 2

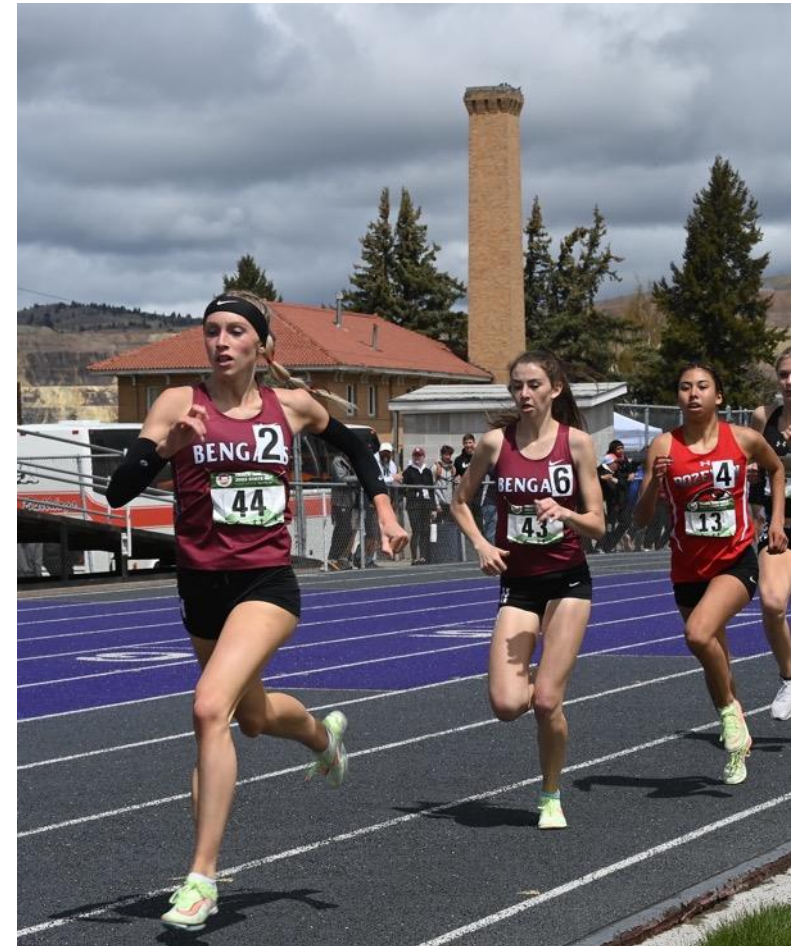
- **Repeat 300-600 at near max effort 90-98% w/partial rest**
 - Volume 800-2000 meters
 - 90-98% max – Train, but will feel like straining
 - 40 seconds-2:00 per rep
 - Rest 10-15 minutes
 - Shorter early, move to longer rests as you move through the season (counterintuitive)
 - 2 x 50 seconds
 - 10 minutes rest in Foundational/General phase
 - 3 x 50 seconds
 - 12 minutes rest in Competitive phase
 - 2 x 50 seconds
 - 15 minutes rest in Championship phase

SPECIFIC 800

- **800 pace repeats of 120-500 meters**
 - 800-1600 meters session volume
 - Rest ~ 2-3x the rep duration
 - Cut down on second set
 - 2 x (4 x 120) w/45 seconds between reps, 4 minutes between sets
 - 2 x (3 x 300) w/2 minutes rest, 5 minutes between sets
 - 2 x (5 x 200) w/90 seconds between reps, 5 minutes between sets
 - 500 w/4 minutes rest, 400 w/3 minutes rest, 300 w/2 minutes rest, 200 w/1 minute rest, 100

MIXING PACES – GET CREATIVE

- **Workouts with varying paces are a big component.**
- **Especially, important in Competitive and Championship phases.**
 - Most often, not enough time to hit every type of workout needed each week.
- **Excellent way to transition from one phase to another.**
 - Ex: Foundational to Competitive, Competitive to Championship.
- **This is an opportunity to get creative as a coach.**
 - Challenging but fun.



MIXING PACES – BORROW CONCEPTS AND GET CREATIVE

■ **ABCs (Johnson, One Variation)**

- A - 2 x 800 @ CV w/200 jog
- B - 3 x 300 @ 800 w/300 jog
- C - 3 x 150 @ 400 w/200 jog

■ **Blender Workout (Grigg)**

- 5 x 30 from a standing start in spikes, 1:30 rest
- 4-5 x 150, 1:30 rest; first 100 at 800 pace, shift for last 50
- < Full recovery >
- 1 x 300 all out

■ **Finish Fast**

- 1 x 800 at CV, 200, 180, 160, 140, 120, 100, 80, 60, progress speed as the reps shorter, hard effort for distance w/3-3:30 walk jog/90% rec

■ **800 Breakdown**

- 800 at 3200, 400 jog, 600 at 1600, 400 jog, 400 at 1600-800, 400 jog, 300 at 800, 400 jog, 4 x 200 at 400/FAST, 200 walk between reps, 100 at AYG (All you got)

■ **Broken Ks (Lananna)**

- **Set 1:** 1K at CV, 400 jog, 500 at 5K, 300 jog, 300 at 3K, 200 jog, 200 at 1600
- < 400 jog >
- **Set 2:** 500 at 3K, 300 jog, 300 at 1600, 200 jog, 200 at 800

Countdown

- 2 x (500 at 3K, 400 at 1600, 300 at 800, 200 at 400, 100)
- 2-3 minutes rest, 100 rep is AYG, 6-8 minutes between sets

EVENT SELECTION

■ Primary events

- 400
 - Double with relays, 200, or 100
 - Special Endurance 1 and 2 are trained with this approach.
 - Running the 400 and doubling trains important 800 qualities.
- 800
 - Double sparingly with 200 or 4x400.
 - Only double with the 400 if the schedule allows (rare).
- 4x400

■ Direct Speed Support

- 100
 - Speed and acceleration maintenance.
- 200
 - Speed and acceleration maintenance.
 - Special Endurance when doubled
- 4x100.
 - Speed and acceleration maintenance.

■ Direct Aerobic support

- 1600

