## FRACTIONAL UTILIZATION 3200M Devlyn Lovell dlovell@antonian.org

## 2020 32nd NMTCCCA Clinic

 Embassy SuitesAlbuquerque, New Mexico

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# TEN CHARACTERISTICS OF PHILOSOPHER COACHES - FRANK DICK 

Committed to individual integrity,
values and personal growth
2.

Profound thinkers who see themselves as educators, not just coaches
3.

Well educated (formally and informally) in liberal arts tradition.
4.

Long run commitment to their athletes and their institution
5.

Willing to experiment with new ideas
6.

Value the coach player relationship, winning aside
7.

Understand and appreciate human nature
8.

Love their sport and work
9.

Honest and strong in character
10.

Human and therefore imperfect

## COMMUNICATE WITH STAKEHOLDERS

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## NEEKLY INFORMATION


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## BUILD A CHAMPIONSHIP CULTURE JANSSEN'S

1. A clear vision -- short and long-term goals that guide why you coach,
2. Aligned coaching styles -- a guide for how you coach and mentor,
3. Core values -- to guide your decision-making, your words, and your actions,
4. Intent -- a clearly communicated purpose for everything you do,
5. Expectations -- standards for on and off-field behaviors, and
6. Accountability -- a means of responsibility and ownership for all behaviors.

## DEVELOP EXPECTATIONS - MISSION STATEMENT/KEYS TO SUCCESS

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 effort is the key to success
 like, and what ampoctit will have when you get $t$, and keep the vision trant and certer.
3. Integrity as the saping gocs, a man is only as nood as his word. Trust is tu-dimertal in reatiorehips, and cur relztonstips are cresn a
 reach thair utimate vision ot suctess.
 comfistence to be yuur best.


## DEVELOP EXPECTATIONS

## STUDENT EXPECTATIONS:

- Runners need to be ready for practice at 6:10 a.m. at the track with their running notebooks.
- Runners need to be dressed in appropriate running attire, with good running shoes and a watch.
- Runners are expected to stay at practice and meets for their duration.
- Participating at meets is mandatory, if assigned.
- Runners who are injured must dress out, meet at the track at posted time, receive treatment from trainer, and ice when needed.
- Runners should stay off their cell phones during practice.
- Runners are to be enrolled in the Band Application and check it regularly.
- Runners are to know our season schedule and communicate with their coaches.


## DEVELOP EXPECTATIONS

ANTONIAN CROSS COUNTRY RUNNING LOG
"It's hard to beat a person who never gives up." Babe Ruth

Name
Week of


| Date | $\begin{gathered} \text { Day } \\ \text { A.M. or P.M. } \end{gathered}$ | Type of Run | Calculated pace | Actual pace | Total Distance of Run | Total <br> Time | Total Miles For Day | Goal met? |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
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"Meeting the demands of excellence is the priority!"
Total Miles this week
By a persistent effort of will it is possible to change the whole body. The athlete must always keep in mind this concept of change and progression. He must never accept his limitations as being permanent, because they are not. - Zatopek

## DEVELOP EXPECTATIONS



## CREATE SCOUTING REPORT

STATE MEET DEMANDS-Individual

| SA Girls |  |  |  |
| ---: | :--- | :--- | :---: |
| Name |  | School | Time |
| 1 | Leah Futey | Cleveland | $18: 26.4$ |
| 2 | Jasmine Turtle-M | Eldorado | $18: 45.6$ |
| 3 | Emily Schoellkopf | Albuquerque | $19: 07.0$ |
| 4 | Brynn Esplin | La Cueva | $19: 15.9$ |
| 5 | Lila Nezar | Volcano Vista | $19: 19.1$ |
| 6 | Laurynn Sisneros | Eldorado | $19: 23.8$ |
| 7 | Isabella Schrader | Volcano Vista | $19: 26.7$ |
| 8 | Marissa Gallegos | Atrisco Heritage | $19: 35.7$ |
| 9 | Isa Gonzales | Cleveland | $19: 39.1$ |
| 10 | Kamalani Anitielu | Farmington | $19: 40.6$ |


| 4A Boys |  |  |  |
| ---: | :--- | :--- | :---: |
| Name |  |  | School |
| 1 | Julian Garcia | Academy | Time |
| 2 | Justin Hickey | Academy | $16: 04.7$ |
| 3 | Rafael Sanchez | Los Alamos | $16: 09.0$ |
| 4 | Angel Anchondo | Santa Teresa | $16: 19.3$ |
| 5 | Wakei Hettinga | Los Alamos | $16: 25.3$ |
| 6 | Rendon Kuydendall | Hope Christian | $16: 26.0$ |
| 7 | Steven Strevell | Los Alamos | $16: 27.0$ |
| 8 | Tayan Benson | Miyamura | $16: 27.5$ |
| 9 | Keith Bridge | Los Alamos | $16: 33.2$ |
| 10 | Riley Watson | Miyamura | $16: 38.5$ |


| Na18 |  |  |  |
| ---: | :--- | :--- | :---: |
| Name | School | Time |  |
| 1 | Jasmine Turtle-M | Eldorado | $18: 22.4$ |
| $\mathbf{2}$ | Leah Futey | Cleveland | $18: 47.5$ |
| 4 | Reilly McClanahan | Eldorado | $19: 08.3$ |
| 5 | Ilisa Marez-Fishb | Albuquerque | $19: 19.4$ |
| 6 | Brivia Salter | Sandia | $19: 25.6$ |
| 7 | Mari Gonzales | La Cueva | $19: 25.8$ |
| 8 | Reina Paredes | Rioveland | $19: 26.5$ |
| 9 | Isa Gonzales | Cleveland | $19: 28.2$ |
| 10 | Lila Nezar | Volcano Vista | $19: 34.1$ |


| 2018 |  |  |  |
| ---: | :--- | :--- | :---: |
| Name |  |  | School |
| 1 | Kashon Harrison | Kirtland Central | $15: 27.3$ |
| 2 | Rafael Sanchez | Los Alamos | $16: 06.5$ |
| 3 | Duncan Fuehne | Los Alamos | $16: 07.9$ |
| 4 | Ty McCray | Miyamura | $16: 10.6$ |
| 5 | Steven Strevell | Los Alamos | $16: 23.7$ |
| 6 | Justin Hickey | Academy | $16: 36.4$ |
| 7 | Oliver Pilon | Academy | $16: 41.8$ |
| 8 | John Hall | Pojoaque Valley | $16: 41.8$ |
| 9 | Skyler Forman | Academy | $16: 45.1$ |
| 10 | Eric Scharton | Hope Christian | $16: 53.1$ |

## CREATE SCOUTING REPORT

2016-2019 Top 10 Average by Classification


## Develop Science Based Training Plan

## Energy Source Comparisons for Various Events (from Gastin, 2011)

"Classic" Model

| Energy Source | 200 | 400 | 800 | 1500 | 5000 | 10000 | Mar |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Aerobic (\%) |  | 18.5 | 35.0 | 52.5 | 80.0 | 90.0 | 97.5 |
| Anaerobic (\%) |  | 81.5 | 65.0 | 47.5 | 20.0 | 10.0 | 2.5 |

"Current" Model

| Energy Source | 200 | 400 | 800 | 1500 | 5000 | 10000 | Mar |
| :--- | :--- | :--- | :--- | :--- | ---: | ---: | ---: |
| Aerobic (\%) | 29.0 | 43.5 | 60.5 | 77.0 | 94.0 | 97.0 | 99.0 |
| Anaerobic (\%) | 71.0 | 56.5 | 39.5 | 23.0 | 6.0 | 3.0 | 1.0 |

The "current" model was determined using the latest methodology in oxygen kinetics, and with a much more elite subject population than the "classic" model.

## BY THE NUMBERS


of energy need is developed in runs of 70-100\% of $\mathrm{VO}_{2} \max$
$13 \%$
is made up of runs $(100 \%+)$ or faster.

## DEVELOP SCIENCE BASED TRAINING PLAN

## Multi-Paced Training Plan

- Within the 13-14 day cycle we will hit different training paces. Paces are fluid differ depending on the time of year.
- Helps reduce the monotony of training.
- Allows for more recovery days if needed.
- Works well with racing schedules.
- Can hit the all of the major training parameters with in the cycle fairly easily.
- Speed and Endurance can be done each within each cycle if needed.


## FRACTIONAL UTILIZATION PERCENTAGES

Event

- 400 m
- 800 m
- 1600m
- 3200 m
- 5000 m
- 10,000m

Percentage of $\mathrm{VO}_{2}$

- 138-140\%
- 120-136\%
- 110-112\%
- 100-102\%
- 97-100\%
- $92-93 \%$


## DEVELOP SCIENCE BASED TRAINING PLAN

Mesocycle

- General Prep (4 weeks)

Workout Type
Aerobic Efficiency
Lactate Threshold $\mathrm{VVO}_{2}$

- Specific Prep (4 weeks)

Lactate Threshold $\mathrm{VVO}_{2}$
Glycolytic

- Pre-Comp (4-6 weeks)
$\mathrm{VVO}_{2}$
Lactate Threshold
Glycolytic
- Comp (3-4 weeks)
$\mathrm{VVO}_{2}$
Glycolytic
Recovery


## DEVELOP SCIENCE BASED TRAINING PLAN

- Lactate Threshold
- Aerobic Conditioning
- Power (Hills)
-Long Runs
- $\mathrm{VO}_{2}$ Max
- Glycolytic (Special I, II)
- Alactic


## DEVELOP SCIENCE BASED TRAINING PLAN

## - LONGER TEMPO

- 40' @ 80\%, 5-6 MILES
- MEDIUM TEMPO
- 30' @ 85\%, 4-5 MILES
- SHORTER TEMPO
- 25' @ 90\%, 3-4 MILES
- INTERVALS
- 8' @ 85\% Rest: 1' jog + 8' @ 85\% Rest: 1' jog + 8' @ 85\% Rest: 1' jog
- 5 X 1600M @ 87\% Rest: 1' jog
- $2(3 \times 1000 \mathrm{~m}) @ 88 \%$ Rest: $45^{\prime \prime}$ reps/2' sets


## DEVELOP SCIENCE BASED TRAINING PLAN

## - INTERVALS

- $12 \times 400$ @ 97\% Rest: 200 JOG
- 6 X 800M @ 97\% Rest: 200 JOG
- $5 \times 1000 \mathrm{M}$ @ 97\% Rest: 400 JOG
- $3 \times 1600 \mathrm{~m}$ @ 97\% Rest: 400 JOG
- COMBO/BLEND INTERVALS
- $3 \times 1000 \mathrm{~m}$ @ $90 \%$ Rest: 1 ' $+3 \times 800$ @ $97 \%$ Rest: $1: 1$
- 1600@ 92\% + 600@ 100\% + 1200@ 92\% + 400@ 110\% + 800@ 97\% Rest: 34'


## DEVELOP SCIENCE BASED TRAINING PLAN

## - INTERVALS

- $12 \times 400$ @ 100\% Rest: 1:1
- $6 \times 800 \mathrm{M} @ 100 \%$ Rest: 1:1
- $5 \times 1000 \mathrm{M}$ @ 100\% Rest: 1:1
- $3 \times 1600 \mathrm{~m}$ @ $102 \%$ Rest: 1:1
- CUT-DOWN INTERVALS
- 1600@ 97\%, 1200@ 100\%, 1000@ 100\%, 800@ 102\%, 400@ 110\% Rest: 1:1
"The greatest gains in maximal aerobic capacity occur when exercise intensity is at levels requiring 90-100\% of maximum capacity/VO2." -Vigil


# DEVELOP SCIENCE BASED TRAINING PLAN 

## - INTERVALS

- $4(4 \times 200)$ @ $110 \%$ Rest: 100 jog reps/400 sets
- $4(2 \times 300)$ @ $110 \%$ Rest: 100 jog reps/400 sets
- 3(4 x 400) @ 110\% Rest: 100 jog reps/400 sets
- $6 \times 400$ @ 110\% 1:1
- $4 \times 600$ @ 110\% 1:2
- $3 \times 800$ @ 110\% 1:2
- 2(300-400-600) @ 110\% Rest: 1:2 jog reps/600 sets


## DEVELOP SCIENCE BASED TRAINING PLAN

## - SPECIAL ENDURANCE II INTERVALS

- $8 \times 150$ @ $120 \%$ Rest: 250 jog
- $2(4 \times 200)$ @ $120 \%$ Rest: 100 jog reps/400 sets
- $5 \times 300$ @ $120 \%$ Rest: $3^{\prime}$
- $3 \times 400$ @ $120 \%$ Rest: $4^{\prime}$
- SPECIAL ENDUARNCE I INTERVALS
- $4 \times 200$ @ BEST EFFORT Rest: $4^{\prime}$
- $3 \times 300$ @ BEST EFFORT Rest: 6 '
- $2 \times 400$ @ BEST EFFORT Rest: $8^{\prime}$


## DEVELOP SCIENCE BASED TRAINING PLAN

## -Long Run

- 10 miles
- 20-25\% weekly mileage
- $50 \times .20=10$
- $65 \% \mathrm{VO}_{2} \mathrm{Max}=8: 27$ (11:00/3200)
- Other example of Long Run
- Progression Long Run
- $1 / 4$ easy, $1 / 4$ slightly slower than Tempo, $1 / 4$ at Tempo, last $1 / 4$ easy.
- Very demanding and should be done only every other cycle.


## DEVELOP SCIENCE BASED TRAINING PLAN

## - Power

- $4 \times 800 \mathrm{M}$ Hills (continuous)
- Pace can be 10k pace (based on slope)
- Shoot for same time for each bout of work
- Rest: $88 \%$ recovery job back down the hill
- Other example of Hill workouts
- 6 mile continuous run over hills
- Effort should be timed
- Pace @ 75\%


## DEVELOP SCIENCE BASED TRAINING PLAN

- $8-10 \times 30-40 \mathrm{~m}$ Fly's with 20 m run in.
- Rest: 3-4' between bouts of work.
- All speed work should be done at the beginning of practice.
- Good time to work on the mental piece with the kiddo's.
- Example workout: $8 \times 30 \mathrm{~m}$ fly's with 4' rest.
- 24 hour recovery.


## DEVELOP SCIENCE BASED TRAINING

## General Preparation Period (4 weeks)

- Training Emphasis: Aerobic Efficiency, Lactate Threshold, and $\mathrm{vVO}_{2}$
- Mon- Long Run
- Tuesday - Tempo (Short) + Strides
- Wednesday - Aerobic Efficiency Run
- Thursday - 6 X 800 M @ $97 \%$ Rest: 300 JOG
- Friday - Aerobic Efficiency Run
- Saturday - Time Trial (1 Mile)
- Sunday - Aerobic Efficiency Run
- Monday - Tempo (Long) + Strides
- Tuesday - Aerobic Efficiency Run
- Wednesday - $6 \times 30 \mathrm{~m}$ Flys
- Thursday - Aerobic Efficiency Run
- Friday - Hills
- Saturday - Long Run
- Sunday - Aerobic Efficiency Run


## DEVELOP SCIENCE BASED TRAINING

## Specific Preparation Period (4 weeks)

- Training Emphasis: Lactate Threshold, vVO, and Glycolytic
- Mon- Long Run
- Tuesday - Tempo (Short) + Strides
- Wednesday - Aerobic Efficiency Run
- Thursday - $5 \times 1000 \mathrm{M}$ @ $100 \%$ Rest: 1:1
- Friday-Aerobic Efficiency Run
- Saturday - Time Trial (2 Mile)
- Sunday - Aerobic Efficiency Run
- Monday - Tempo Run (Long)
- Tuesday - $6 \times 30 \mathrm{~m}$ Flys
- Wednesday - Aerobic Efficiency Run
- Thursday $-4(2 \times 300) @ 110 \%$ Rest: 100 jog reps/400 sets
- Friday-Aerobic Efficiency Run
- Saturday - Hills
- Sunday - Aerobic Efficiency Workout


## DEVELOP SCIENCE BASED TRAINING

## Pre-Competition Period (4 weeks)

- Training Emphasis: $\mathrm{vVO}_{2}$, Lactate Threshold, Glycolytic
- Mon $-3 \times 1600 \mathrm{~m}$ @ $102 \%$ Rest: 1:1
- Tuesday - Aerobic Efficiency Run
- Wednesday - 30m Flys
- Thursday - Aerobic Efficiency Run
- Friday - Tempo (Short) + Strides
- Saturday $-3(4 \times 400) @ 110 \%$ Rest: 100 jog reps/ 400 sets
- Sunday - Aerobic Efficiency Run
- Monday - 2(4×200) @ $120 \%$ Rest: 100 jog reps/400 sets
- Tuesday - Aerobic Efficiency Run
- Wednesday -Thursday - Tempo (Long)
- Thursday - Aerobic Efficiency Run
- Friday-Recovery Run
- Saturday - Race
- Sunday - Long Run


## DEVELOP SCIENCE BASED TRAINING

## Competition Period (4 weeks)

- Training Emphasis: $\mathrm{vVO}_{2}$, Glycolytic, Recovery
- Mon - Aerobic Efficiency Run
- Tuesday - $3 \times 2000 \mathrm{~m} @ 90 \%$ Rest: 2'
- Wednesday - Aerobic Efficiency Run
- Thursday - Aerobic Efficiency Run
- Friday- $5 \times 300$ @ $120 \%$ Rest: $3^{\prime}$
- Saturday - Long Run
- Sunday - Aerobic Efficiency Run
- Monday - $3 \times 800$ @ $102 \%$ Rest: 1:1
- Tuesday - Aerobic Efficiency Run
- Wednesday - $4 \times 200$ @ BEST EFFORT Rest: $4^{\prime}$
- Thursday - Aerobic Efficiency Run
- Friday-Easy Run
- Saturday - Race
- Sunday - Long Run



## FIND TIME FOR YOUR GREATEST SUPPORTERS



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