

400 Meter Training

Finding the Truth

Chris Wineberg – University of Cincinnati

This export of my presentation will not make sense or be usable without the “Training Inventory Calculator and Pyramid” excel file. I am happy to share it upon request. Please email me at winebect@ucmail.uc.edu.

Chris Wineberg – University of Cincinnati

Home of the UC Athletics

VARSITY VILLAGE



TOP-RATE ATHLETIC FACILITIES

Located on south side of campus, Varsity Village is the home of UC Athletics and, with the exception of cross country and golf, contains all home competition venues for Bearcats teams, as well as the Athletics Department staff.



Olympic Gold Medal



Antione Drakeford – 45.83
NCAA All-American / School Record



Men's 4 x 400 Relay School Record – 3:08.13

04/10/2010

Ethan Freet, Maurice Norman, Chase VanCura, Antione Drakeford



Kenya Woodall – 51.76
NCAA All-American / School Record



All-American 4x400 Relay School Record - 3:35.96

Deanna Gesicki, Haisha Bisiolu, Tiona Lattimore, Bryana Robinson

What is the TRUTH?

What workouts should you do for the 400 meters?

Should you do more volume or more speed work?

Should you take more rest or less rest?

How do you identify what the limiting factor is for an athlete?

How do you differentiate and prescribe different workouts for different athletes?

How do you establish target times for a workout?

How can you predict an athlete's race ability from practice?

HOW SHOULD YOU COACH A 400 METER RUNNER???



JOEY WOODY
400M HURDLES
TRAINING PROGRAM

www.RunnerUniverse.com
ATHENS '97

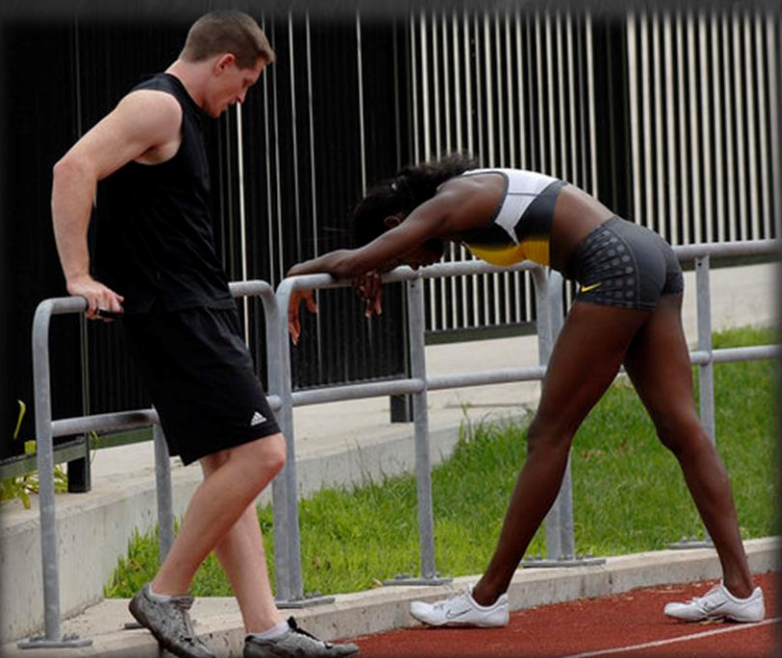


Vince Anderson
Texas A&M
NATIONAL WOMEN'S
ASSISTANT COACH
OF THE YEAR



Division I
Coaches of
the Year
Outdoor
Track & Field







Mary Wineberg Best Workout Chart - 50.24 PR

Distance	Rest	Time		
100's				
6-8 x 100's	8'	11.4		
8 x 100's	3'	11.8		
10 x 100's	1'	12.4		
150's				
8 x 150's	4'	19.1		
6 x 150's	6-8'	17.9		
4-6 x 150's	10-12'	17.4		
200's				
8 x 200's	2'	29.8		
6-8 x 200's	4'	27.9		
6 x 200's	5'	26.1		
6 x 200's	6-8'	25.6		
5-6 x 200's	8-10'	24.4		
4 x 200's	10-12'	23.4		
300's				
6 x 300's	5'	46.3		
5 x 300's	8'	43.3		
4 x 300's	12'	40.8		
3 x 300's	15'	37.7		
500's				
3-4 Split 500's (3/2)	12'/1'	44.8	26.1	
3 x 500's	12-15'	74.6		
500, 400, 300	10'	74.4	55.8	39.1
Misc.				
4 sets (150, 1' 150)	6-8'	18.9		
150, 2,3,2,150	10-15'	17.9	24.9	37.7
2-3 sets 2,150,1	6-8'/12'	24.9	18.1	11.9
1,2,3,3,2,1	8-15'	11.9	23.9	37.7
Race Modeling				
2 x split 350 (200, 1', 150)	20' sets	24.1	18.1	



Antione Drakeford – 45.83



Antione Drakeford Best Workout Chart - 45.83 PR

Distance	Rest	Time		
100's				
6-8 x 100's	8'	10.4		
8 x 100's	3'	10.8		
10 x 100's	1'	11.3		
150's				
8 x 150's	4'	17.4		
6 x 150's	6-8'	16.3		
4-6 x 150's	10-12'	15.9		
200's				
8 x 200's	2'	27.2		
6-8 x 200's	4'	25.4		
6 x 200's	5'	23.8		
6 x 200's	6-8'	23.4		
5-6 x 200's	8-10'	22.2		
4 x 200's	10-12'	21.3		
300's				
6 x 300's	5'	42.2		
5 x 300's	8'	39.5		
4 x 300's	12'	37.2		
3 x 300's	15'	34.4		
500's				
3-4 Split 500's (3/2)	12'/1'	40.8	23.9	
3 x 500's	12-15'	68.1		
500, 400, 300	10'	67.8	50.9	35.6
Misc.				
4 sets (150, 1' 150)	6-8'	17.2		
150, 2,3,2,150	10-15'	16.3	22.7	34.4
2-3 sets 2,150,1	6-8'/12'	22.7	16.5	10.9
1,2,3,3,2,1	8-15'	10.9	21.8	34.4
Race Modeling				
2 x split 350	20' sets	22.0	16.5	
(200, 1', 150)				

Time:

52.00

Distance	Rest	Time		
100's				
6-8 x 100's	8'	11.8		
8 x 100's	3'	12.2		
10 x 100's	1'	12.9		
150's				
8 x 150's	4'	19.8		
6 x 150's	6-8'	18.5		
4-6 x 150's	10-12'	18.0		
200's				
8 x 200's	2'	30.9		
6-8 x 200's	4'	28.8		
6 x 200's	5'	27.0		
6 x 200's	6-8'	26.5		
5-6 x 200's	8-10'	25.2		
4 x 200's	10-12'	24.2		
300's				
6 x 300's	5'	47.9		
5 x 300's	8'	44.8		
4 x 300's	12'	42.2		
3 x 300's	15'	39.0		
500's				
3-4 Split 500's (3/2)	12'/1'	46.3	27.0	
3 x 500's	12-15'	77.2		
500, 400, 300	10'	77.0	57.7	40.4
Misc.				
4 sets (150, 1' 150)	6-8'	19.6		
150, 2,3,2,150	10-15'	18.5	25.7	39.0
2-3 sets 2,150,1	6-8'/12'	25.7	18.7	12.4
1,2,3,3,2,1	8-15'	12.4	24.7	39.0
Race Modeling				
2 x split 350	20' sets	25.0	18.7	
(200, 1', 150)				

Time:	52.00			
Distance	Rest	Time		
100's				
6-8 x 100's	8'	11.8		
8 x 100's	3'	12.2		
10 x 100's	1'	12.9		
150's				
8 x 150's	4'	19.8		
6 x 150's	6-8'	18.5		
4-6 x 150's	10-12'	18.0		
200's				
8 x 200's	2'	30.9		
6-8 x 200's	4'	28.8		
6 x 200's	5'	27.0		
6 x 200's	6-8'	26.5		
5-6 x 200's	8-10'	25.2		
4 x 200's	10-12'	24.2		
300's				
6 x 300's	5'	47.9		
5 x 300's	8'	44.8		
4 x 300's	12'	42.2		
3 x 300's	15'	39.0		
500's				
3-4 Split 500's (3/2)	12'/1'	46.3	27.0	
3 x 500's	12-15'	77.2		
500, 400, 300	10'	77.0	57.7	40.4
Misc.				
4 sets (150, 1' 150)	6-8'	19.6		
150, 2,3,2,150	10-15'	18.5	25.7	39.0
2-3 sets 2,150,1	6-8'/12'	25.7	18.7	12.4
1,2,3,3,2,1	8-15'	12.4	24.7	39.0
Race Modeling				
2 x split 350 (200, 1', 150)	20' sets	25.0	18.7	



ENERGY SYSTEM OVERVIEW

Energy System	Anaerobic Alactic (ATP + CP)	Anaerobic Lactic (Glycolysis)				(Shared Lactic / Aerobic)		Aerobic (Krebs Cycle)	
		Speed	Speed Endurance	Speed Endurance ₁	Speed Endurance ₂	Tempo (Intensive)	Tempo (Extensive)	Tempo (Continuous)	
Intensity	95-100%	95 - 100%	95 - 100%	95 - 100%	95 - 100%	80 - 90 + %	60 - 80%	40 - 60%	
Time	7 sec	7 - 20 sec	20 - 40 sec	40 sec - 2 min	40 sec - 2 min	40 sec - 2 min	40 sec - 2 min	2 min +	
Distance	20-60cm	80 - 150m	150 - 300m	300 - 600m	300 - 600m	up to 600m	up to 600m	long	
Application to 110/100mH	H 1-5	H 6 - 10							
Application to 400mH	H 1	H 1-3	H 4-8	H 8-10					
European Equivalent Terminology	Alactic Power	Alactic Capacity	Lactic Power	Lactic Capacity					

Thanks Joey for unraveling my brain

Accel – Speed – Speed End. – SE1 – SE2 – Int. Tempo – Ext. Tempo

Chris Wineberg's Training Inventory Calculator

Enter the athlete's goal / ability 400 meter time below in seconds

Time: 52.00

Distance	Rest	Time			
100's					
10 x 100's	1'	12.9			
8 x 100's	3'	12.2			
6-8 x 100's	8'	11.8			
150's					
8 x 150's	4'	19.8			
6 x 150's	6-8'	18.5			
4-6 x 150's	10-12'	18.0			
200's					
8 x 200's	2'	30.9			
6-8 x 200's	4'	28.8			
6 x 200's	5'	27.04			
6 x 200's	6-8'	26.5			
5-6 x 200's	8-10'	25.2			
4 x 200's	10-12'	24.2			
300's					
6 x 300's	5'	47.9			
5 x 300's	8'	44.8			
4 x 300's	12'	42.2			
3 x 300's	15'	39.0			
500's					
3-4 Split 500's (3/2)	12'/1'	46.3	27.0		
3 x 500's	12-15'	77.2			
500, 400, 300	10-12'	77.0	57.7	40.4	
Misc.					
4 sets (150, 1', 150)	6-8'	19.6			
2-3 sets 2,150,1	6-8'/12'	25.7	18.7	12.4	
150, 2,3,2,150	10-15'	18.5	25.7	39.0	
1,2,3,3,2,1	8-15'	12.4	24.7	39.0	
Race Modeling					
2 x split 350	20' sets	24.96	18.7		
(200, 1', 150)					

Acceleration Development
(full intensity, up to 50m, Rest so no drop in quality)
Total Volume = 200-500m (Can do resisted runs also)

Speed development
(full intensity, 40-80m runs, Rest so no drop in quality)
Total Volume = 300-500m (30m flies are common)

Alactic/Glycolytic Short Speed Endurance
(full intensity, 40-80m runs, Rest 1'-3' each / 4-10' sets)
Total Volume = 300 - 1200m

Lactic Acid Speed Endurance
(high intensity, 80-150m runs, Rest 5'-10')
Total Volume = 300 - 1200m

Special Endurance 1
(high intensity, 150 - 300m, Rest 5-10')
Total Volume = 300 - 1200m

400 METER RACE

Special Endurance 2
(high intensity, 300m-600m, Rest 15-20')
Total Volume = 300 - 1200m

Intensive Tempo
(80-90% Intensity, >80m, Rest is 30"-5' each, 3-10' sets)
Total Volume = 800-2800 meters

Extensive Tempo (Aerobic Power)
(70-80% intensity, >100m, Rest is 30-90" each, 2-3' sets)
Total Volume = 1400 - 3000 meters

Extensive Tempo (Aerobic Capacity)
(< 70% intensity, >200m, Rest is < 45" each and < 2' sets)
Total Volume = 1400-4000 meters

Training Pyramid for developing a 400 meter runner

Start at the bottom of both sides and work up the pyramid towards the race
The lower block on each side is a prerequisite for the next block up



Thank You!

If you would like the training inventory calculator and pyramid simply request it by emailing me and I will send you the excel file.

winebect@ucmail.uc.edu