



NSCA
COACHES
CONFERENCE 2022

JANUARY 6 – 8, 2022

San Antonio, TX & Online | 2.0 CEUs

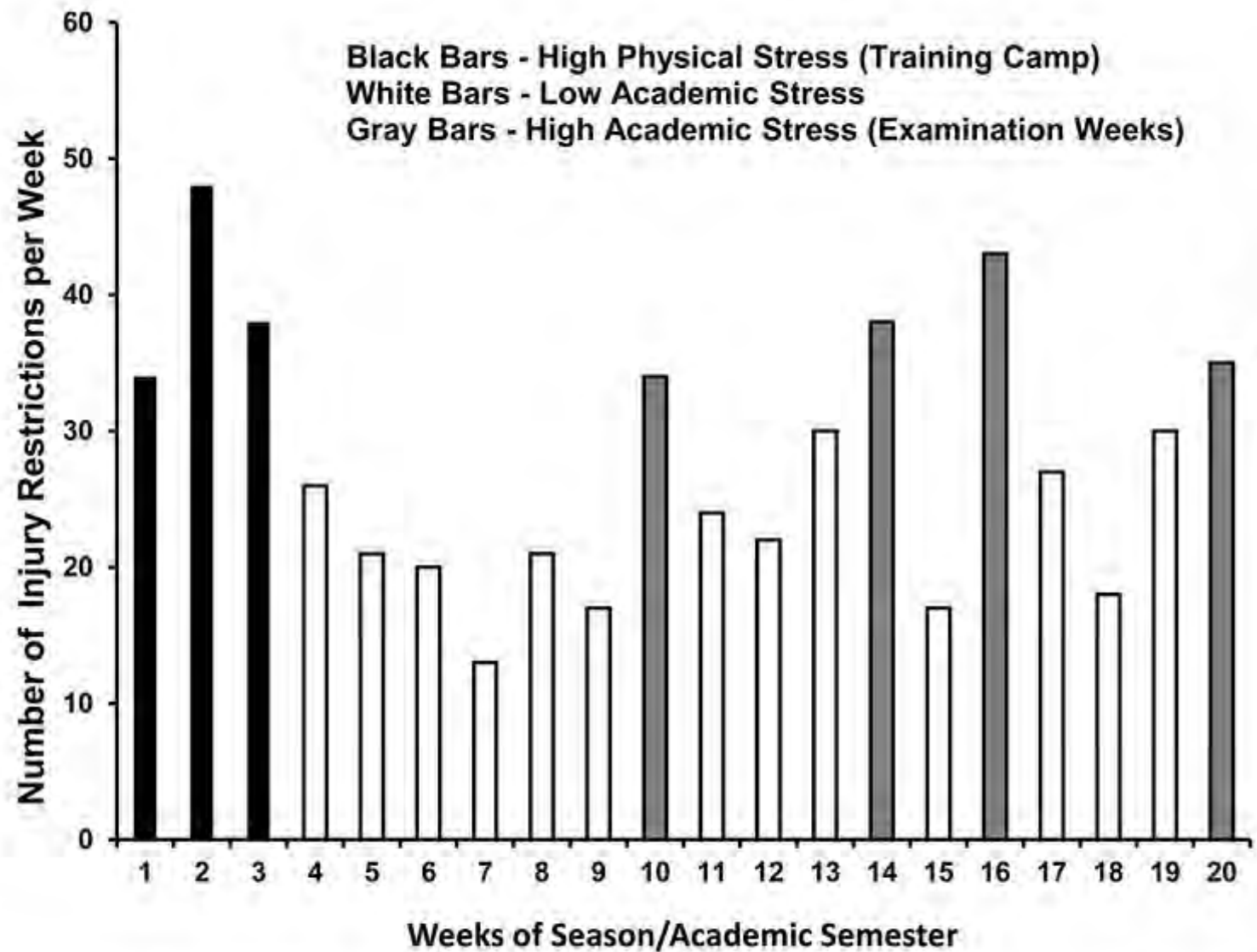
#NSCAsCoaches22

CONFLICT OF INTEREST STATEMENT

I have no actual or potential conflict of interest in relation to this presentation.

- Day to Day Variability

- Hand to Hand Combat
- Conflicting Energy Systems
- Multi Planar
- Malnourished
- Dehydrated



Number of weekly injury restrictions over 20-week athletic season/academic semester.

Mann, J. Bryan^{1,2}; Bryant, Kirk R.³; Johnstone, Brick³; Ivey, Patrick A.²; Sayers, Stephen P.

3 Energy Systems

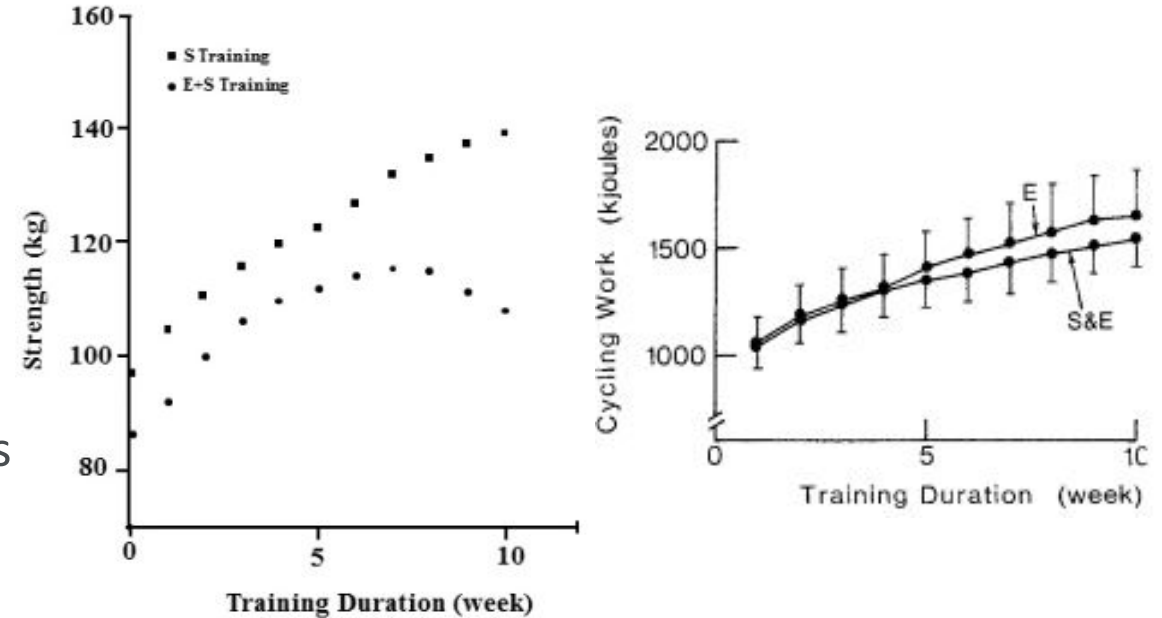
- ATP-CP 0-10sec “MAX EFFORT”
- Anaerobic Glycolysis 10-120secs “HARD EFFORT”
- Aerobic 120secs + “PACED EFFORT”

Interference Effect:

Aerobic Training Compromises Strength and Power Development

Strength and Power Training Has No Effect or Enhances Aerobic Development*

- “In order to become a wrestler one should have the strength of a weight- lifter, the agility of an acrobat, the endurance of a runner and the tactical mind of a chess master.”
- — Alexandre Medved



Interference of Strength Development
by Simultaneously Training for Strength
and Endurance

Robert C. Hickson

Off Season 4 wk Block

	week 1		week 2		week 3		week 4	
Day 1	wt	reps	wt	reps	wt	reps	wt	reps
W/Up, Shoulder Mobility Prep, Staggered Push Up 2x5ea								
A1 BENCH PRESS	135 x5		145 x5		155 x5		160 x5	
(Complete 3 w/Up sets prior to working sets)	135 x5		145 x5		155 x5		160 x5	
	135 x5		145 x5		155 x5		160 x5	
	135 x5		145 x5		155 x5		160 x5	
	135 x5		145 x5		155 x5		160 x5	
	135 x5		145 x5		155 x5		160 x5	
A2 REVERSE FLYS	5x8		5x8		5x8		5x8	
B1 - BACK SQUAT	155 x5		165 x3		175 x5		180 x5	
(Complete 3 w/Up sets prior to working sets)	175 x5		190 x3		200 x3		205 x3	
On Last top set Perform more reps if able, record reps	190 x5+		200 x3		210 x2		215 x2+	
	155 x5		165 x5		190 x3		195 x3	
	155 x5		165 x5		190 x3		195 x3	
	155 x5		165 x5		190 x3		195 x3	
B2 HIP MOBILITY HIP CIRCLES	3ea way		3ea way		3ea way		3ea way	
C2 - SA DB Row	4 x10		4 x12		4 x12		4 x12	
C3 Strict Front and Lateral Shoulder Raise	4 x10ea		4 x10ea		4 x10ea		4 x10ea	
C4 - Vested Nordic Hamstring Curl	4x5		4x5		4x5		4x5	
FINISHER A: Weighted Toe Touches 4x20, Lemon Squeezer w/ twist 4x10, Weighted Plank Hold 3x1min								
Day 2	wt	reps	wt	reps	wt	reps	wt	reps
W/Up, 3x5 kettle bell swings, SL Hip Bridge, OH Squat								
A1 Power Clean	190 x1		195 x1		200 x1		205 x1	
(Complete 3 w/Up sets prior to working sets)	190 x1		195 x1		200 x1		205 x1	
	165 x3		170 x3		175 x3		185 x3	
	165 x3		170 x3		175 x3		185 x3	
	165 x3		170 x3		175 x3		185 x3	
B1 - RDL	130 x5		135 x5		140 x5		150 x5	
(Complete 3 w/Up sets prior to working sets)	130 x5		135 x5		140 x5		150 x5	
	130 x5		135 x5		140 x5		150 x5	
	130 x5		135 x5		140 x5		150 x5	
B2 Chest Supported Row HEX BAR	4 x12		4 x12		4 x12		4 x12	
B3 WEIGHTED PULL UPS	4x5		4x4		4x3		4x2	
B4 Seated Curl to Press	4x10		4x10		4x10		4x10	
FINISHER A: Lemon Squeezer w/ twist 4x10, Ab Rollout 4x10								
Day 3	wt	reps	wt	reps	wt	reps	wt	reps
W/Up, Shoulder Mobility Prep, Staggered Push Up 2x5ea								
A1 Safety Bar SQUAT	135 x5		145 x5		155 x5		170 x5	
(Complete 3 w/Up sets prior to working sets)	135 x5		145 x5		155 x5		170 x5	
	135 x5		145 x5		155 x5		170 x5	
	135 x5		145 x5		155 x5		170 x5	
	135 x5		145 x5		155 x5		170 x5	
A2 Strict Front and Lateral Shoulder Raise	5 x10ea		5 x10ea		5 x10ea		5 x10ea	
B1 BENCH PRESS	145 x5		150 x4		160 x3		170 x2	
(Complete 3 w/Up sets prior to working sets)	115 x8		120 x8		130 x7		135 x7	
	115 x8		120 x8		130 x7		135 x7	
	115 x8		120 x8		130 x7		135 x7	
	115 x8		120 x8		130 x7		135 x7	
B2 HAMMER ROW 5ct Hold 5ct Eccentric	5 x5 5/5		5 x5 5/5		5 x5 5/5		5 x5 5/5	
C1 HEAVY SHRUG	185 x8		195 x8		205 x8		215 x8	
(Complete 3 w/Up sets prior to working sets)	185 x8		195 x8		205 x8		215 x8	
	185 x8		195 x8		205 x8		215 x8	
	185 x8		195 x8		205 x8		215 x8	
C2 BW Nordic Hamstring Curl	5 x5ea		5x5ea		5 x7ea		5 x8ea	
FINISHER A: Weighted Toe Touches 4x20, Hanging Pike Up 4x10								

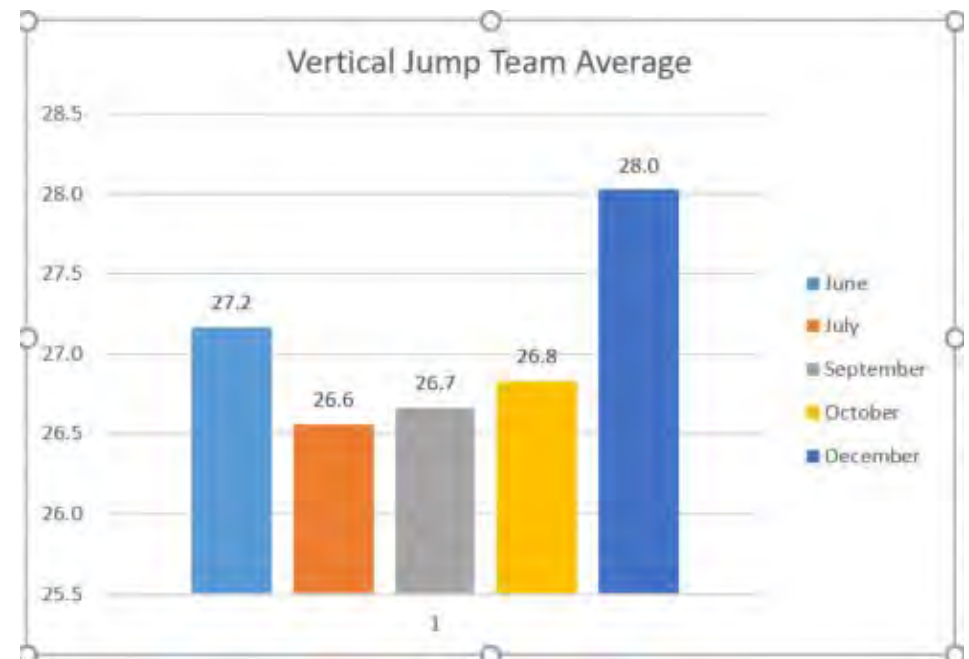
In Season 4 wk Block

Iowa State Wrestling				
			1RM	
			CLEAN	SQUAT BENCH
In Season Meso 5 LB Contrast Training Phase1			175	315 175
December				
	week 1	week 2	week 3	week 4
Day 1	wt reps	wt reps	wt reps	wt reps
W/Up, 1x5 kettle bell swings, SL Hip Bridge				
A1 - Incline Press	115 x5	120 x4	125 x3	130 x3
(Complete 3 w/Up sets prior to working sets)	115 x5	120 x4	125 x3	130 x3
	115 x5	120 x4	125 x3	130 x3
A2 - Straight Arm Lat Pull Down	3x8	3x7	3x5	3x5
B1 - 2x2 Power 2x3 Speed BACK BOX SQUAT	245 x2	245 x2	250 x2	255 x2
(Complete 3 w/Up sets prior to working sets)	245 x2	245 x2	250 x2	255 x2
Power .4<	185 x5	190 x5	200 x5	205 x5
Speed .6<	185 x5	190 x5	200 x5	205 x5
B2 - PVC PIPE Kneeling End ROM Hip Flexion Int,Ext Rotation	4x2ea	4x2ea	4x2ea	4x2ea
C2 - Barbell RDL	135 x5	135 x5	140 x5	145 x5
Wk1 65% PC, Wk2 70% PC, Wk3 75% Wk4 80% PC	135 x5	135 x5	140 x5	145 x5
	135 x5	135 x5	140 x5	145 x5
C2 - Arm and Leg Supported SA DB ROW	3x10	3x8	3x7	3x5
CORE FINISHER A: Weighted Plank Hold 2x1min, Lemon Sq w/ Twist 2x15				
	week 1	week 2	week 3	week 4
Day 2	wt reps	wt reps	wt reps	wt reps
W/Up, 3x5 kettle bell swings, SL Hip Bridge, OH Squat				
A1- DB Incline BENCH PRESS 2x5 Power 2x5 Speed	45 x5	45 x5	50 x5	50 x5
Super set w/ 4 way band pull aparts 4x5ea	45 x5	45 x5	50 x5	50 x5
(Complete w/Up sets prior to working sets)	35 x5	40 x5	40 x5	40 x5
	35 x5	40 x5	40 x5	40 x5
A2 - Seated Curl to Press	3x10	3x8	3x7	3x5
A3 - SL Roller Hamstring Curls	3x4ea	3x5ea	3x5ea	3x5ea
B1 - Reverse Flys	3x10	3x10	3x10	3x10
B2 Weighted Pull Ups	3x8	3x7	3x7	3x5
FINISHER: Weighted Toe Touches 2x20, Med Ball Slam 2x5, Med Ball Lateral throw 2x5ea				

Key Performance Indicator

Vertical Jump

Name	Vert (in.)	6/1/2021	7/12/2021	9/15/2021	10/13/2021	12/13/2021	
125lbs							
Kysen			26.8	31.3	30	19%	
Gabartan			27.2	26.3	25.8	-5%	
Fuesley	25.1	20.2	25.2	26	24	-4%	
133lbs							
Ramazan	24.9	23.1	26.5	26.8	27.1	6%	
Klepps	29.5	27.7	29.2	28.6	26.8	-1%	
141lbs							
Redding	23.5	22.7	26.3	25.3		12%	
Woodley	22	23.4	21.1	24.2		10%	
Flora	33.1	33.4	32.3	32.2	31.8	-2%	
149lbs							
Parker	26.5	26.8	25.1	25.2		-5%	
Degen	24.2	21	21.1	21.1		-2%	
Robinson	31.5	31.5	30.4	30.4	29.1	0%	
157lbs							
Cam	29.9	29	29	27.3	27.4	-8%	
Jason K.			24.2	24	23.4	-3%	
Morese	22.2	20.9	23.5	22.6		6%	
Huddleston			28.6	28.6	28.1	2%	
165lbs							
Soto	27.7	32.2	30.6	30.3			
Judge	27.7	27.9	28.7	27.5	28	4%	
Austin K.		20.7	21.2	21.6	21.1	7%	
Schunacher			26.3	25.8			
Schmidt	24.6	24.9	23.8	23.1	23.2	-3%	
174lbs							
Brodeson			24	24.2			
Devine			28.5	28.5	28.1	-3%	
Demichiel				27.4			
Long			24.6				
184lbs							
Coleman	30.3	30.3	30.6	30.4	30.3	3%	
Folter			23.2	24.4	24		
Hart		32.2	30.6		30.4	1%	
197lbs							
Vogler	29.1	29.4	28.6	29.4	30.4	4%	
Heavyweight							
Schuyler			27.1	26.2	27.1	-1%	
Anderson	24.6	24.9	23.4	25.1	24.6	0%	
Greenlee		28.5	24.9	25.6	27.2	-4%	
Duggan				23.8			
Freshman							
Knopick			27	28.1		6%	
Panero J.			30.9	31.4	31.7		
Barber			24.4				
Nate S.							
Hrabovsky			24.4				
Aime			31.8	29.6	28.4	8%	
Huston			23.3	23.6			
TEAM AVERAGE:							
		27.2	26.6	26.7	26.8	28.0	2%



Physiological change

Biological change

Neurological change

Pre Weigh In

Mid Arm 11 ½ “

Mid Thigh 19”

1hr Post Weigh In

Mid Arm 11 ¾ “ + ¼”

Mid Thigh 21” +2”

Flow State

How can you train an athlete to be more athletic?

Muscle Memory

Speed = Reduction in antagonist co activation

Contraction – Relaxation

Strength reinforces body awareness

Multi Planar

Contralateral

Co Activation

Flow State

Post Activation Potentiation
Evaluate Adaptation
Evaluate Fatigue

	8/26/2021	9/10/2021	PAP 9/10/2021	
Vert (in.)				
	23.8	25.5	7%	
	28.4	27.8	-2%	
19.1	19.7	20.2	6%	
19.5	19.7	20.3	4%	
18.5	19.9	21.6	17%	
	22.4	22.6	1%	
20.9	20.9	21.8	4%	
	21.1	21.8	3%	
23.2	22.5	24.6	6%	
	24	27.4	14%	
17.1	17.4	19.2	10%	
23.1	23.3	23.9	3%	
18.9	18.5	19.4	3%	
27.1				
30.1	31.3	30.1	4%	
30.4				
16.9	18.6	18.5	9%	
22.1		23.0	6%	

Managing Caloric Deficit & Dehydrated Athletes

- Wrestling Athlete Profiles In Season
 - Developmental (Freshman / Injured)
 - 4 – 8 working sets / wk
 - Speed / Power Focus (Weight Management)
 - Limited Time Under Tension, Low Impact, Contrast Training, Velocity drives training loads. 4 – 6 working sets / wk major muscle groups,
 - Strength / Growth Focus
 - 6 working sets / wk major muscle groups

Thank you
Q & A
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