IN SEARCH OF THE PERFECT CURVE



Jelena Rowe 2016 IHSA Runner-up 2016 New Balance Champion 2017 IHSA Champion w/Record 2017 USA #1 Under 20 2017 USATF Junior Champion 2017 Silver Medal Junior Pan Am

Andrew Schmitt Bloom Twp District 206

How We Got Here



Over the past decade, Bloom Township District 206 has proudly produced 3 IHSA State Champions and 4 Runner-up performances in the Jumps. Jelena Rowe's 2017 6 foot performance in the High Jump was a new IHSA Meet Record. Jelena also went on to be the 2017 USATF National Champion for all US Athletes under 20 years of age. In this presentation, Coach Schmitt will detail what he has learned as to how to recruit, condition, and drill technique in the High Jump. Through video analysis, he will show the importance of the curve and how to identify and correct common errors. Andrew Schmitt is certified as a Level 2 USATF Coach in both Jumps and Sprints/Hurdles and has been coaching high school athletes for nearly 20 years.



It takes a Family



Our Job as Coaches are to create opportunities that athletes want to come back to and will work to get there. They know that they are not alone.

Jelena Rowe's State Meet Record



With any good plan, start at the end and work your way back.

High Jump for Beginners

- Straight (Big Displacement and must be Straight.
- Transition (Cross-over step)
- Curve (maintain lean with inside shoulder lower than outside.)
- Take-off (Penultimate step, Heel-Toe, Hips up)
- The Flight (Curve takes care of rotation, heels together, look for opposite cross-bar)
- Landing (When hips are over bar, tuck chin)

Dictionary

curve

Q

CUIVE

noun

 a line or outline that gradually deviates from being straight for some or all of its length. "the parapet wall sweeps down in a bold curve"

verb

1. form or cause to form a curve.

"her mouth curved in a smile" synonyms: bend, turn, loop, wind, meander, undulate, snake, spiral, twist, coil, curl; More

Translations, word origin, and more definitions

What is the Purpose of the Curve

- Generate Speed
- Put yourself in position to Jump
- Use Physics to Release Athlete over Bar
- Helps with rotation over the bar



Figure 1: Illustration of how the constant radius curve was calculated (A), and then used to calculate deviation from this curve on each step of the approach (B).

Find your Happy Place



Is it Physics or Magic?



Jelena's Best Curve

2017 Prep Top Times: Jelena Clears 6-1 US#1

High Jump for Beginners

- Straight (Big Displacement and must be Straight.
- Transition (Cross-over step)
- Curve (maintain lean with inside shoulder lower than outside.)
- Take-off (Penultimate step, Heel-Toe, Hips up)
- The Flight (Curve takes care of rotation, heels together, look for opposite cross-bar)
- Landing (When hips are over bar, tuck chin)

Breaking It Down





Crazy Talent with No Curve



What Do you see?

- Good Speed
- Great Athleticism
- No Curve
- Runs at bar and tries to jump over
- No energy from curve causes "seated" position
- Hits bar with back leg due to lack of rotation

Example 2: Not enough Curve



Ok speed, First Step is very important

Does not run Straight veering Inside Inside Shoulder is Level Lower

Inside Shoulder Needs to be Lower

She is Level at take-off, therefore she has no choice but to jump into the bar

Strong, she has good rotation but not enough energy from the curve to take her over.

Wish I knew then what I know now.

With and Without a Lean 1



With a Lean & Without 2



Figuring it Out

Great Displacement
Nice Transition
Nice Curve
Great Take-Off
Finish with Style





You be the Judge?



HOW DO WE GET THERE? BUILD AN ATHLETE

Testing Technique Strength Training Flexibility/Mobility Speed Training Mindfulness

Testing: NFL Does It



Testing

Standing Long Jump (Overall Explosiveness) 5 Step Bound (Single-Leg Strength) Medball Overhead Throw (Explosiveness) Verticle Jump (Hip Height) 30 meter dash (Speed)



Technique: Circle of Life



Technique on a Circle

- Run the Circle w/Lean
- Skip for Height
- Rocker Skip
- Pop-ups
- Scissor Jumps
- Run-Throughs
- 8 step Approaches





More on the Circle

17 Foot Circle



Technique on a J Curve

Scissor Jumps
Run-Throughs
4 step Approaches
8 step Approaches



Run-Throughs Focusing on Lean

- Big Displacement on First Step
- Run Straight
- Cross-over with Big Lean



Full Approach







BECOME A BETTER ATHLETE

Olympic Lifts Plyos General Strength Speed Development Hip Mobility Flexibility Medballs

Acceleration Training



All Athletes

Blazing Trojans

Saturday January 6, 2018

Acceleration A Warmup

	1 x	2	x	30 x Arm Swings W/Side Shuffle	
	1 x	2	x	30 x Easy Carioca (Big Twist in the Back)	
	1 x	2	x	30 x Skip, Skip, Lunge	
	1 x	2	х	30 x Skip, Skip, Warrior 3	
	1 x	2	x	30 x Marching A	
	1 x	2	х	30 x Bound for Height	
	1 x	2	x	30 x Quick Fire	
	1 x	2	х	30 x 4 Ballistic bounces w/ Push out	
	1 x	2	x	30 x 4 Drive Phase Steps with pause and accelerate	
	1 x	2	x	30 x Roll-over toes and accelerate	
				Acceleration Med Ball Series	
	3 x	10	х	OHF Toss at 8lb	
L	3 x			20 x Sprint	
L_	3 x	10	х	OHB Toss at 8lb	
L	3 x			20 x Sprint	_
Γ	3 x	10	х	Med Ball Slams at 8lb	
L	3 x			20 x Sprint	_
	3 x	10	х	Prisoner Squats at BW	
				Acceleration Dev 1	
	1 x	3	х	10 x Blocks or Runway or Hurdles	
	1 x	3	x	20 x Good Acceleration mechanics	
	1 x	3	x	30 x Good Acceleration mechanics	
				Hurdle Mobility	
	2 x	6	x	Over/Over - Alt lead legs	
	4 x	6	х	Each leg leads 2 sets, and trails 2 sets	
	2 x	6	x	Over-Unders	
	2 x	6	х	Knee-up skips / outside of hurdles	

Accelerations



Medballs and Multi-Jumps



	All Athletes
Blazing Trojans	

				Saturday January 6, 2018				
Acceleration A Warmup								
	1 x	2	x	30 x Arm Swings W/Side Shuffle				
	1 x	2	x	30 x Easy Carioca (Big Twist in the Back)				
	1 x	2	x	30 x Skip, Skip, Lunge				
	1 x	2	х	30 x Skip, Skip, Warrior 3				
	1 x	2	x	30 x Marching A				
	1 x	2	х	30 x Bound for Height				
	1 x	2	x	30 x Quick Fire				
	1 x	2	х	30 x 4 Ballistic bounces w/ Push out				
	1 x	2	x	30 x 4 Drive Phase Steps with pause and accelerate				
	1 x	2	х	30 x Roll-over toes and accelerate				
				Acceleration Med Ball Series				
1	3 x	10	х	OHF Toss at 8lb				
Ĺ	3 x	_		20 x Sprint				
1	3 x	10	х	OHB Toss at 8lb				
L	3 x			20 x Sprint				
	3 x	10	х	Med Ball Slams at 8lb				
	3 x			20 x Sprint				
	3 x	10	х	Prisoner Squats at BW				
				Acceleration Dev 1				
	1 x	3	x	10 x Blocks or Runway or Hurdles				
	1 x	3	x	20 x Good Acceleration mechanics				
	1 x	3	x	30 x Good Acceleration mechanics				
				Hurdle Mobility				
	2 x	6	x	Over/Over - Alt lead legs				
	4 x	6	х	Each leg leads 2 sets, and trails 2 sets				
	2 x	6	x	Over-Unders				
	2 x	6	x	Knee-up skips / outside of hurdles				

Olympic Lifts & Plyos







Yoga

- The mat is a safe place
- Time to be quiet
- Time to be with one's self (Look within)
- Metal
- No Cell Phones Allowed



High Jumper Mentality

Trying to tame a free spirit is like telling the wind to stop blowing. www.facebook.com/ thewildflowerclub

Have a Great Season

- Educate yourself with USATF or USATFCCCA
- Youtube is a great resource
- Record your athletes: showing is better than telling.
- Enjoy the Journey
- All the Best: <u>aschmitt@sd206.org</u>

NAMASTE The light within me honors the light within you.

yourbeautifullife.org

Take Survey Please:

https://goo.gl/forms/sDF5RUXOZ3Qufexi2