

CLIVE ROBERTS-UNIVERSITY OF IOWA

My Evolution of Developing the 400m runner



MUCH THANKS TO SO MANY

Freddy Andrade-Body Mind and Speed

Dave Hunt-University of Toronto

Todd Lane- LSU

Joey Woody-Director of Track and Field University of Iowa

Wiz-University of Iowa (RET)

Gabe Saunders-Stanford University

Steve Rajewsky-University of Michigan

Jim Knapp, Craig Fuller-Central Michigan University

Landon Evans-University of Iowa Strength Conditioning

Scott Cappos, Layne Anderson, Jason Wakenight, Molly Jones, Andrew Dubs, Kate See

Athletes that I've coached

HAWKEYES

MY BACKGROUND/FOUNDATION

Canadian background

- Where I learned how to put together a program

Sprint background

- Learned the importance of speed

2nd Big Ten Championships

- Realized that my student athletes were not as fit as I thought



THE EARLY YEARS

Microcycle Planner Period: Preparation						
Microcycle 19-22			November 5-26			
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
WJ-800n Hmob-carsons 2*6 4*15 bound Acc devel contrast leds 30m (5,6,7,4) MB-Hoffa- 5,6,7,4 CD-Akron	WJ-800m Hmob walker *8 Superman scramble*30sec/6 0m Pedestal *30sec Sand walks CD-	WJ-800 Gold DF*A*45m SP-C-45m Fly sprints: 25accel+20m fly(7,9,10,5) CD-Western	WJ-800 Purple DF-Cx10 SP-Bx45 Pedestal swiss ball*30 sec GS-Lane w/MB*20 Special walk series *2(20m) CD-	WJ-800 Purple DF-A-45m SP-C-45m Speed Development 90 sprint-Float-Sprint (3,4,5,2) CD-Western	WJ-800-Gold DF-C-45m SP-B-45m BU-4*50m TI 250,3*200,150 Week 1 250,3*200,3*1 50 Week 2 2*250, 3*200, 3*150 Week 3 250,2*200,3*1 50 Week 4 GS-Incredible Hulk CD-Akron	

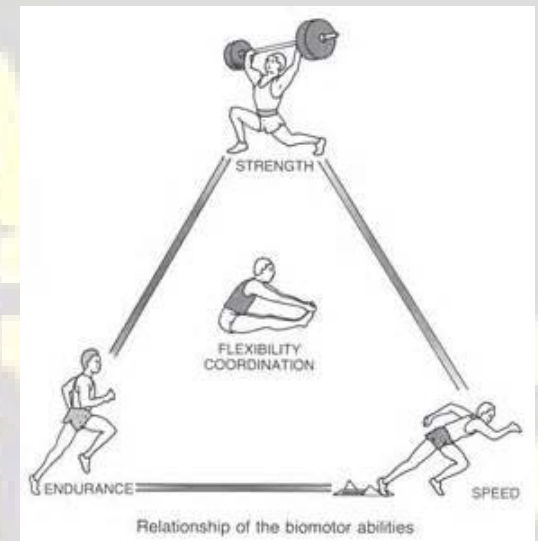
WHAT DID I LEARN?

- **Philosophy**
 - Personal
 - Athletic
- **Develop a clear system of trust with your athletes**
 - Buy in is key
- **Get them fit DAWG!**

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MY COACHING PHILOSOPHY

- Constantly develop the Bio-motor Abilities and Rest
- Master the Basics
- Understand the requirements of the event



WHAT ARE THE BIO-MOTOR ABILITIES

Speed

Acceleration

Maximum Speed

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STRENGTH

- **Absolute Strength**
- **Maximum Strength**
- **Relative Strength**
- **Power**
- **Strength Endurance**
- **Special Strength**
- **Specific Strength**
- **General Strength**

SKILL

General

Event Specific

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SUPPLENESS

Static

Dynamic

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The background of the slide features the Iowa Hawkeyes logo, which consists of a stylized yellow hawk head in profile, facing right, set against a light blue background. Below the hawk head, the words "IOWA HAWKEYES" are written in a bold, yellow, sans-serif font.

STAMINA

Increase Event specific Endurance

Ability to sustain work

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REGENERATION

Complete Rest

Massage

EMS



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THE IMPORTANCE OF MENTORSHIP





My Plan

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MACROCYCLE CONSIDERATIONS

- Will it be one peak season or a double peak season?
- Will there be interruption from indoor to outdoor?
- Are there any past injury concerns?
- What is the psychological profile of the student athlete that I'm working with?
- What is the training age of the student- athlete?
- Where does the student- athlete stand academically?

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ENERGY SYSTEM DISTRIBUTION

ENERGY SYSTEM TRAINING BREAKDOWN FOR SPRINT AND HURDLE EVENTS

Terminology	Length of Run	Component	Energy System	% of Predicted Performance	Rest Interval Between Reps/Sets	Daily Volume Ranges 100/200/ 110/100mH	Daily Volume Ranges 400/400mH
ABSOLUTE SPEED	20-80m	Speed (s) Anaerobic power	Anaerobic Alactic	90-95% 95 - 100%	3-5 / 6-8 min 3-5 / 6-8 min	300-800m 300-500m	300-900m 300-600m
SPEED ENDURANCE	50-80m	Alactic Short Speed End. (ASSE)	Anaerobic Alactic	90 - 95% 95 - 100%	1-2 / 5-7 min 2-3 / 7-10 min	300-800m 300-800m	600-1200m 600-1200m
SPEED ENDURANCE	80m	Glycolytic Short Speed End. (GSSE)	Anaerobic Glycolyte	90 - 95% 95 - 100%	1 / 3 min 1 / 4 min	300-800m 300-800m	600-1200m 600-1200m
SPEED ENDURANCE	0-150m	Speed Endurance (SE)	Anaerobic Glycolyte	90 - 95% 95 - 100%	5 - 6 min 6 - 10 min	300-900m 300-600m	400-1000m 400-800m
SPECIAL ENDURANCE I	150-300m	Long Speed Endurance (LSE)	Anaerobic Glycolyte	90 - 95% 95 - 100%	10 - 12 min 12 - 15 min	600-900m 300-900m	600-1200m 300-1000m
SPECIAL ENDURANCE II	300-600m	Lactic Tolerance (LAT)	Lactic Acid Tolerance	90 - 95% 95 - 100%	15 - 20 min Full	300-600m 300-600m	900-1200m 300-900m
INTENSIVE TEMPO	100-600m	Anaerobic Capacity (ANC)	Mixed: Aerobic Anaerobic	80 - 89%	30s - 5 / 3-10 min	800-1800m	1000-2800m
EXTENSIVE TEMPO	200-800m 100-200m	Aerobic Capacity (AC)	Aerobic Aerobic	40 - 79% 60 - 79%	45 - 2 min 30s / 2-3 min	1400-2500m 1400-1800m	2400-4000m 1800-3000m
CONTINUOUS TEMPO	1600-6400m	Aerobic (AC)	Aerobic	40 - 60%	Heart Rate 130-150	1600-3200m	3200-6400m

PROGRESSION ????

General to Specific

- Training will go from general activities to specific activities

Simple to Complex

- Simple activities to more complex activities

Capacity to Power

- Greater capacity will lead to greater expression of power

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ENDS TO MIDDLE DEVELOPMENT

Hills, Sleds, Line Drills, Blocks: 10-30m

Speed

Flying runs, Assisted runs, In and Outs, Wicket drill: 30-60m

Speed Development

120 (40 sprint float sprint) Repetition runs: 60-150m

Special Endurance 1

300-600m

Special Endurance 2

Circuit training, reps of 200: 200-400m

Tempo Extensive

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General Preparation Period

- **Speed**: Sprint related drills, acceleration mechanics, sand runs, sled pulls, hill runs
- **Strength**: Proper lifting technique, circuit training, general strength, jumping power
- **Skill**: General, Sprint Drills
- **Suppleness**: Static, Dynamic
- **Stamina**: Aerobic Capacity and Aerobic Power

GENERAL PREP EXAMPLE

Group 1-Lake, Brittany, Taylor,
Jalynn

Group 2, Elexis, Briana, Alexis H, Alexis G, Lydia

WHZ-Tria

MHZ-Klyvens, Kerry, Peter, Matt

Microcycle Planner

Period: Preparation

Phase: General Prep

Mesocycle : 1

Microcycle 5

Sprints//Jumpers

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Warm up-1200m jog HB+TAL+TAH+DFA+DFD Sprints Prep Ankling,Shin, Knee Mutli Throw OHB/BLF/Sq chest pass 2*8 G1+G2-Wickets *3-5(12spt) G1- 10*200 w/circuit (push up, hip thrust, Sit ups) G2- 3(2-6-2)//3*150 @ 35, 2:00, 35 RI=circuit AM-Lift 6:30 Bodybuilding Cool Down	Warm up-1000m jog HA+TAL+DFA+DFD+HM Sprints Prep Askip,Arun, Cont Fast leg, DB fast, SLB Multi Jump Amos*10*2 G1/G2 MaxV Drill*3(12) 5*Ladder(12.1,11.9) 4-6* cotnrast runs (sled/free) PM-Lift 4:00pm High Cool Down	Warm up- TBA Ncaa Day off Encourage to warm up Pedestal*2*20 Cool Down	Ankle mobility(Alphabet, band) Warm up 1200 jog HB+TAL+ TAH+DFA+DFD Sprint Prep Askip, Arun, Cont fast, DB fast, SLB Multi Trhow- Romans series *8 Mutli Jump HFH,HFD, Rrjump *10 (2?) G1/G2 Wicket*3 6*20sp, 6*30sp, 6*full(combo) 6*push in weight room PM-Lift 4:00pm High Cool Down	Hill Warm up-TBA Sprint Prep- Ankle, Shin, Knee (20m) General Circuit Phillipians/Collosians *15sec G1- 2(5*150Hill) RI=jog back/5 minutes G2- 2*(4*250 Hill) RI=jog back/5 minutes Cool Down	Warm up-TBA Circuit Ephesians scramble in sand Timothy 2(45ea) Cool down	Complete Rest

GPP ACCUMULATION PHASE

WEIGHT CHART	Exercise	20%	25%	30%	35%	40%	45%	50%	55%	60%	65%	70%	75%	80%	85%
	Power Hang Clean	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	Power Hang Snatch	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	Back Squat	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	Front Squat	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	RDL	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	Pit Shark	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	Step-Up	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

TRAINING MAXES		WT	PERIOD	OFF SEASON FALL 2015 GPP 3	THE UNIVERSITY OF IOWA TRACK & FIELD
Power Hang Clean		#N/A			
Power Hang Snatch		#N/A			
Back Squat		#N/A			
Front Squat		#N/A			
RDL		#N/A			
Pit Shark		#N/A	EMPHASIS	ACCUMULATION	#N/A
Step-Up		#N/A			

WEEK OF		WEEK 1				WEEK 2				WEEK 3				WEEK 4			
EXERCISE		%	WT	REPS	RPE	%	WT	REPS	RPE	%	WT	REPS	RPE	%	WT	REPS	RPE
DB JUMP SQUAT			10-20	5				5				5				5	
Max height jump																	
Emphasize hip/knee timing																	
HANG CLEAN		55%		4		60%		4		65%		3		70%		2-3	
Catch deep		55%		4		60%		4		65%		3		70%		2-3	
		55%		4		60%		4		65%		3		70%		2-3	
FRONT SQUAT		40%		5		40%		5		40%		5		45%		5	
Week 2-4: TEMPO: 6010		50%		4		50%		4		50%		4		55%		4	
		60%		3		60%		3		60%		3		65%		3	
						70%		2		70%		2		75%		2	
						65%		5x5		75%		1		80%		1	
										70%		5x4		75%		4x3	
BACK EXT TO DB ROW				1x10				3x10				3x10				3x10	
REVERSE HYPER				1x10				3x10				3x10				3x10	
Mini Band around ankle																	
BENT KNEE REVERSE HYPER				1x10				3x10				3x10				3x10	
Partner or Band around knee																	
ISO KNEELING LEAN BACK				2x30s				3x30s				3x45s				3x45s	
ISO SUPINE HAMSTRING				2x30s				3x30s				3x45s				3x45s	
Weeks 1-2: 90/90																	
Weeks 3-4: 90/135																	

WEEK OF		WEEK 1				WEEK 2				WEEK 3				WEEK 4			
EXERCISE		%	WT	REPS	RPE	%	WT	REPS	RPE	%	WT	REPS	RPE	%	WT	REPS	RPE
DL JUMP TO SL LAND				3				3				3				3	
Moderate effort jump																	
Hold MB at chest																	
BLOCK POWER CLEAN		50%		3		55%		3		60%		2		65%		2	
MID THIGH		50%		3		55%		3		60%		2		65%		2	
						55%		3		60%		2		65%		2	
SINGLE LEG SQUAT								x5				x5				x4	
TEMPO: 6010								x5				x5				x4	
Last set is RPE 9-10								x5	9 to 10			x5	9 to 10			x4	9 to 10
Record weights!												x5	9 to 10			x4	9 to 10
Pelvis neutral, no coming up																	
BACK EXTENSIONS				1x5				3x5				3x5				3x5	
TEMPO: 6010																	
SA DB MILITARY PRESS				1x8				x8				x8				x8	
TEMPO: 3010																	
ISO KNEELING LEAN BACK				1x30s				3x30s				3x45s				3x45s	
ISO SUPINE HAMSTRING				1x30s				3x30s				3x45s				3x45s	
Weeks 1-2: 90/90																	
Weeks 3-4: 90/135																	

RPE 10: MAX EFFORT (VERY HARD), RPE 9: 1-2 reps in tank (HARD), RPE 8: 2-3 reps in tank (FAST BUT HARD)

SPECIFIC PREPARATION

- Speed: Acceleration mechanics, block starts, in & out runs
- Strength: Maximum Strength, General Strength
- Skill: Event Specific Drills
- Suppleness: less emphasis on static stretching
- Stamina: Anaerobic Capacity, Aerobic Power, Specific Endurance

SPECIFIC PREPARATION EXAMPLE

Group 1-Lake, Brittany, Taylor, Jalynn Group 2, Elexis, Briana, Alexis H, Alexis G, Lydia WHZ-Tria MHZ-Klyvens, Kerry, Peter, Matt						
Microcycle Planner						
Period: Preparation						
Sprints//Jumpers						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Warm up-Ankle mob/1200m jog HB+TAL+DFA+DFB Sprints Prep 2*25m Askip, Arun, Bskip, Double A, Power skip, ankling,SLB Multi Jump 2*10 bunny hops/SLJ*8, STJ*6 G1/G2 MaxV wickets*18*3 5*18 Accel Ladder(11.9/11.7) 4*BK intro/ 2*20+20fly AM-Lift 6:30 High Cool down Hurdle mobility+Green Band Series	Warm up-Ankle mob/1000m jog TAL +TAH+ DFA+DFD Sprints Prep 2*25 Amarch, Double A, Bward run Butt kicks knee in front, ankle Shin, Knee Multi Throw Daniel (20ea) G1 Ephesians scamble 20m/20sec Pedestal *20/Band series special walk series G2 MaxV wickets 18*3 <u>4*400+200@65-68</u> <u>(60sec/5minutes)</u> 4*60m push PM=Lift 4:00pm (just G2) Cool Down Static Stretch/Ems Recovery	Warm up-Ankle mob/1200m jog TAL+DFA+DFC Sprint Prep 2*25m Askip, Arun, Bskip,Brun, Double A Power skip, ankling, SLB G1 MaxV wicket*18*3 2*450, 2*350 G2- Pool/Pedestal*20sec Band walk series*20m Ankle series PM=Lift 4:00pm (G1) Cool Down Eldoa Series (G2 only)	Warm up- Ankle mob/1200m TAL+DFA+DFC Sprint Prep Askip, Arun, Bskip,Brun, Double A Power skip, ankling, SLB G1- Pool/Pedestal*20sec Band walk series*20m Ankle series G2- Multi Jump*3-5*Hurdle hops(24/26 inch) 2sets (2 resistance runs 20m/ 14 point start) 2*20+20fly 3*300 (in flats) Fast faster Fastest RI=4 PM= Lift 4:00pm (G2) Cool Down G2 cool down after weights	Warm up-Ankle mob/1000m TAL+DFA+DFC Sprint Prep 2*25m Askip, Arun, Bskip,Brun, Double A Power skip, ankling, SLB G1- Multi Jump*3-5*Hurdle hops(24/26 inch) 2sets (2 resistance runs 20m/ 4 point start) 2*20+20fly 4*4*60m G2- 10*200 @32 RI=32 rest 6* carver stadiums Cool Down TBA	Warm up-TBA G1/G2 20 minute Bike Daniel 20ea	Complete Rest

CURRENT'S YEAR MAX STRENGTH PHASE

COACH ROBERTS

PHASE 3

MAX STRENGTH FOCUS

	Week 1	Week 2	Week 3	Week 4 (Pre-Thx)
Monday	Bodyweight Warm-Up 20kg Vertical Jump (Gymaware) - 3 jumps MB Rotational Shot Throw: 2x6 MB Scoop Throw: 2x6 A1) Clean (from blocks): 75%:5x2 B1) Leaning Tower (4D Trainer): 2x15 B2) Leaning Tower w/ Hip Ext: 2x10 B3) Supine SL Plank w/ MB Throw: 2x10 C1) Iso Ham (135/90): 1x30s C2) Iso Big Toe Raise: 1x30s C3) Iso Bulgarian Split Squat: 1x30s AG: DB Jumps (15lbs each hand): 5x6 LH: Pit Shark Dynamic Squat: 185lbs: 5x3	Bodyweight Warm-Up 3 Jumps 2x6 2x6 80%:5x1 3x15 3x10 3x10 1x30s 1x30s 1x30s	Bodyweight Warm-Up 3 Jumps 2x6 2x6 80%:5x1 3x15 3x10 3x10 1x30s 1x30s 1x30s	Bodyweight Warm-Up 3 Jumps 1x6 1x6 70%:5x1 2x15 2x10 2x10 N/A N/A N/A
Wednesday	A1) Jump Squats: 15%: 5x8 A2) Horizontal Dynamic Step-ups to Pad: 5x3 B1) Deadlifts (3 blocks): 90% of Clean: (3010): 4x3 B2) Barbell Bench Press: (3010): 4x4 C1) Double Leg Hip Bridge (bands): 4x6 C2) A/P and P/A Dorsiflexion: 4x8 EMS: Max Strength: 3 minutes on TMG muscles Group 1/2: 80% of clean: 4x5	20%: 4x6 4x3 100%: 3x3 5-10+lbs, 3x4 3x6 3x8 5 minutes Group 1/2: 90% of clean: 3x5	20%: 4x6 4x3 100%: 3x3 5-10+lbs, 3x4 3x6 3x8 5 minutes 3x5	20kg: 2x3x8 2x3x5 N/A 5-10+lbs, 2x3 2x6 2x8 5 minutes
Friday	A1) Eccentric Back Squat: 90%: 4x3 A2) Box Jumps: 4x3 B1) Chin-Ups: 4x5 B2) FWD Leaning Toward to Box w/ Bands: 4x5 C1) Iso Ham (135/90): 1x30s C2) Iso Big Toe Raise: 1x30s C3) Iso Bulgarian Split Squat: 1x30s EMS: Max Strength: 5 minutes on TMG muscles BB/JL: Pit Shark LH: 2 sets back squat, 2 sets pull-through Group 1/2: 80%:4x3	95%: 4x2 4x3 3x5 3x5 1x30s 1x30s 1x30s 5 minutes Group 1/2: 80%:3x3	100%:3x2 3x2 3x5 3x5 1x30s 1x30s 1x30s 5 minutes Group 1/2: 85%:2x2	N/A 5x3 3x5 3x5 1x30s 1x30s 1x30s 5 minutes

PRE-COMPETITION/COMPETITION

- **Speed**: Blocks 20m-60m, runs from 30m-60m from stand, 3 point or fly
- **Strength**: Maintenance, Power, General Strength
- **Suppleness**: Dynamic Flexibility
- **Stamina**: Speed Endurance, Lactate Tolerance, Race Tactics, Anaerobic Capacity

COMPETITION EXAMPLE

Group 1-Lake, Brittany Group 2, Elexis, Alexis H, WHZ-Zinnia, Carisa MHZ-Klyvens, Kerry, Peter, Matt							
Microcycle Planner Period: Preparation Phase: Specific Prep 1 Mesocycle : 2 Microcycle 9 Sprints//Jumpers							
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Warm up G1-acceleration lines*5//Hand offs *4 6*200 28-30 RI=4-5' G2/G2H 3*Completion runs 500,2(3*60)	Warm up G1-Acceleration ladder *5 BK-30m*4 50,50,150,50,50 they looked great RI=Full recovery 12-15' G2/G2H Acceleration Ladder*5 2*1H,1*5H,2*2H <u>2*2*150@ RI=6</u> Guster just did fire drill	G1-G2 20 minute Jog Timothy 2 (2*20)//Colossians 2*20 G3 30 minute run Timothy 2 (2*20)//Colossians 2*20 Or Complete Day Off Your choice	G1-200 focus Acceleration Ladder*5/Hand offs *4 Technique starts 4*starts G2- 3*completion runs Hand offs *4 2-3*100 flys	Travel Day We will stop at the Univ. of Illinois Hydrate Well Shake out at hotel Hurdle Mobility 5*10H alt Leg walkovers Roll out	Pre Meet Warm uip walk through G1 4*20BK G2 4*20BK 3*100 @80	Big Ten Championships Brittany Brown 4*1/100/200 Lake Kwaza4*1/100/200 Elexis Guster 4*1/400 Montayla Holder 4*1/400mH Alexis Hernandez-4*1/400 Mahnee Watts-800 Adrienne Alexia -800 Sarah Ryan-LJ Zinnia Miller-LJ Carisa Leacock-LJ KD/KD/Tunde Pre-Meet	Big Ten Championships Brittany Brown 100/200/4*1 Lake Kwaza 100/200/4*1/4*4 Elexis Guster 400/4*1/4*4 Montayla Holder 400mH/4*1/4*4 Alexis Hernandez-400/4*1/4*4 Mahnee Watts-800/4*4 Adrienne Alexia -800/4*4 Zinnia Miller-TJ Carisa Leacock-TJ Tunde Amosu-TJ Kerry Dean-TJ Klyvens Delaunay TJ
Cool down Hurdle mobility+Green Band Series	Cool down Hurdle mobility+Green Band Series	Cool Down Static Stretch/Ems Recovery	Cool Down Eldoa Series (G2 only)	Cool Down G2 cool down after weights "			

WARM UP INVENTORY



UNIVERSITY OF IOWA TRACK & FIELD WARM-UP INVENTORY

Phase 1	Heat A (HA)	Heat B (HB)	Torso Activation Low (TAL)	Torso Activation High (TAH)
1	Jog/Skip 400m	Jog/Skip (FWD/BWD) 400m	Kneeling Rock Back Breathing	Side-Lying Unsupported Clam
2	Jumping Jacks	Arms Up Jacks	Cat Camel	Side Elbow Plank - Dynamic
3	Seal Jacks	Scissor Jacks	Allah Arch	Prone Plank with Hip Extension
4	Cross Jacks		Cobra Downward Facing Dog	Side Elbow Plank with Leg Lift
5			Side Lying Alligator	Quad Nordic
6			Side Lying Leg Lift	Prone Elbow Push-Up
Phase 2	In Place Flex A (DFA)	Dynamic Flex B (DFB)	Dynamic Flex C (DFC)	Dynamic Flex D (DFD)
1	Neck F/B/L/R/StoS	Leg Swings - Frontal	Leg Swings - Frontal	Leg Swings - Frontal
2	Arm Circles/Swings	Leg Swings - Sagittal	Leg Swings - Sagittal	Leg Swings - Sagittal
3	Hip Circles	Trail Leg Windmill	Trail Leg Windmill	Trail Leg Windmill
4	Side Bend	Eagles - Prone	Eagles - Prone	Eagles - Prone
5	Knee Circles	Eagles - Supine	Eagles - Supine	Eagles - Supine
6	Lunge Ankle Rolls	Hurdle Seat Exchange	Donkey Kicks	Mini-Band Forward Walks
7	Supine 90/90 Hamstring	Inverted Bicycle	Leg Whips	Mini-Band Backward Walks
8	Kneeling Glute Stretch	Wide Stance Hip Circles	Lunge Exchange	Mini-Band Lateral Walks
9	Kneeling Groin Rock	Walking on Toes then Heels	Lateral Walk on Toes then Heels	Mini-Band Diagonal Forward Walks
10	Kneeling Hip Flexor Rock w/ Hip IR	Carioca Walk on Toes	Forward Lunge w/ Quad Stretch	Mini-Band Diagonal Backward Walks
11	Supine Hip Bridge	Carioca Lunge Walk	Forward Spiderman	
12	Wordest Greatest	Reverse Lunge w/ Backward Reach	Forward Diagonal Spiderman	
Phase 3	General Agility Series (GAS)	Hurdle Mobility (HM)	COACH DRILLS	COACH DRILLS
1	Double Leg Square Shuffle	Hurdle Walkover (alt lead leg)		
2	Stork Hops on Line (10-20m)	Hurdle Walkover (const lead leg)		
3	Lateral Stork Hops	Lateral Alt Leg Skip (Str Leg)		
4	180 Deg Jump Turns	Lateral Alt Leg Skip (Flexed leg)		
5	360 Deg Jump Turns	Over Under (L-Over, R-Over)		
6	90 Deg Stork Turns	Over Under (R-Over, L-Over)		
7	Side Shuffle Vertical Jumps	Hurdle Walkover Skip (alt lead Leg)		
8	Single Leg Square Shuffle	Hurdle Walkover Skip (const lead leg)		
9				
10				
11				
12				

COOL DOWN INVENTORY



UNIVERSITY OF IOWA TRACK & FIELD COOL-DOWN INVENTORY

Phase 1	Dynamic A		Dynamic B	
1	Forward Skip w/ Alt Arms		Leg Swings Frontal	
2	Backward Skip w/ Dbl Arms		Leg Swings Sagittal	
3	Eagles		Arm Seals	
4	Scorpions		Arm Flexion/Extension	
Phase 2	Soft Tissue Hip	Soft Tissue Upper Leg	Soft Tissue Lower Leg	Soft Tissue Upper
1	DT TFL	FR Quadriceps	DT Shin	DT Supine Arm Angels
2	DT Upper Glute	FR Groin Squeeze w/ Flex/Ext	DT Calf 1	DT Side Lying Sh ER/IR
3	DT Piriformis	ORB Groin Squeeze w/ Flex/Ext	DT Calf 2	DT Prone Biceps
4		DT Seated Hamstring w/ Flex/Ext	DT or TB Foot	DT Triceps
5				TB Upper Trap Bridge w/ Sh Flex
Phase 3	Low Back/Hip/Leg 1	Low Back/Hip/Leg 2	Lower Leg/Ankle	Upper Mobs/Stretches
1	A/P Standing Staggered RDL	L5-S1 ELDOA	A/P Ankle Dorsiflexion	Standing Wall Angels
2	A/P Kneeling Hip Flexion	Quaduped Groin Series	P/A Ankle Dorsiflexion	Kneeling Long Lat Stretch
3	M/L Kneeling Flex/ER	Seated Glute Stretch	Kneeling Shin Stretch	Wall Triceps Stretch
4	P/A Lunge w/ Reach	Human Pinwheel	Sole-of-Foot Stretch	Prone Chest Stretch
5	P/A Lunge w/ Rotational Reach	Hamstring Spectrum	Band Wall Calf/Ankle Stretch	Standing Mid Back Stretch
6	P/A Lunge w/ Knee Flexion	Long Inner Thigh Stretch		Standing Trap Stretch
7	Use Green Band with these movements	Supine Knee Touchers		Standing Deep Shoulder Stretch
8				FR Upper Back Extensions
9	Cross-Band Supine 90/90			Seated Cross-Legged Prayer
10	Cross-Band Supine Glute			
11	Cross-Band Knee Touchers			
10	Cross-Band SL Knee to Ground			
11	Cross-Band Wall Squat			
12	Use Green or Purple Band with these movements			
Phase 4	Post Workout Nutrition Protein (20-30 grams) + Carbohydrate (Starches or Fruits)			
1	Rockin Refuel Shake			
2	Dairy Protein (Greek Yogurt, String Cheese) + Fruit			
3	Salad with Protein + Fruit			
4	Sandwich or Wrap			
A/P	Front side to Back side	RULES FOR COOLING DOWN 1) Take your time. Most of the time, less intensive, longer cool-down periods restore motion and tissue much better 2) Never get into pain. When stretching or foam rolling, stay under 5 on a 1-10 pain scale 3) When stretching during cool-down, provide gentle motions. 4) Always refuel yourself after any type of activity.		
P/A	Back side to Front side			
M/L	Middle to Outside (lateral)			
DT	Double Tennis Ball			
TB	Tennis Ball or Lacrosse Ball			
FR	Foam Roller	THESE ACTIVITIES CAN BE DONE OUTSIDE OF COOL-DOWN PERIODS AND CAN BE IMPLEMENTED THROUGHOUT THE DAY TO ENSURE LONG-TERM JOINT/MUSCLE HEALTH AND PERFORMANCE		
ORB	Blue Orb Ball			

TRACK AND FIELD ROUTINES INVENTORY



UNIVERSITY OF IOWA TRACK & FIELD ROUTINES INVENTORY

MULTIPLE JUMP ROUTINES

KILIMANDJARD	RIP	RUDIMENT	EVEREST	EXTENDED	TETONS	TREK	SUPERIOR
Star Jump	Standing Long Jump	Power Skip for Height	Lunge Jumps	Straight Leg Scissors	180-360 Degree Jumps	Skip for Height	Left Leg Hops
180-360 Degree Jumps	Standing Triple Jump	Power Skip for Distance	Tuck Jumps	Flexed Leg Scissors	Speed Skater	Skip for Distance	Right Leg Hops
Speed Skater	3 Double Leg Bounds	Single Leg FWD	Double Leg Butt Kicks	Alternated Bounds	Downhill Jumps	Straight Leg Scissors	3 Lefts / Rights Bounds
Line Hops (lateral)	LLRR Combo	Single Leg BWD	Lateral Squat Jumps	LLRR Bounds	Lunge Jumps	Flexed Leg Scissors	
Dynamic Step-Ups		Double Leg FWD	Downhill Jumps		Single Leg Squat Jumps	Alternate Leg Bound	
Single Leg Butt Kicks		Double Leg BWD	Straddle Jumps				
		LLRR w/ Low Amplitudes					
		Medials					

MULTIPLE THROW ROUTINE (MB)

MULTIPLE THROW ROUTINE MT

GAS	TANK	BOMB	SHELL	MORTAR	ABBREVIATION	MEANING
Standing OHF	Standing Shoulder C-T	Overhead Backwards	Lunge w/ Chest Throw	Hop w/ OHB	C-T	Catch Toss
Hip C-T	Reach and Hike	Between Legs Forward	OHF w/ Step	Hop w/ BLF	OHF	Over Head Forward
Good Mornings	Back Toss	Hammer Hip Throw Right	Shoulder Throw w/ Step	2 Hops w/ OHB	OHB	Over Head Backward
V-Ups	Seated Oblique Twist C-T	Hammer Hip Throw Left	Kneeling OHF	2 Hops w/ BLF	BLF	Between Legs Forward
Soccer Sweeps	Leg Toss	Squat Chest Throw	OHF Locked	1 Box w/ OHB	KSCT	Kneeling Side Catch Toss
Hurdle Reach	Torso Circles			1 Box w/ BLF	KOHF	Kneeling Over Head Forward
KSCT	KOHF					
Knee Toss	Leg AD-Abs					
Partner Exchange	Prone OHB					
Prone C-T	Kneeling Arch					
Seated Roll	Partner Exchange / KOHB					
Front Loaders	Arm AD-Abs					

GENERAL STRENGTH ROUTINES

WATERLOO	PEDESTAL	PILLAR	BATMAAN	VERDUN
Prisoner Squats	Prone, ES, SL Raise	V-Ups	Single Leg Squats	Low Walks Forward
V-Situps	Supine, ES, SL Raise	Back Hypers	Toe Touchers	Low Walks Backward
Pushups	Prone, HS, SL Raise	Leg Toss	Pushups	Duck Lunge Walks
Back Hypers w/ Twist	Supine, HS, SL Raise	Wrestler's Bridge	Back Hypers	Lateral Duck Walks
Rocket Jumps	Lateral, ES, SL Raise	Crunch w/ Twist	Hamstring Nordics	Lunge Extension Walks
Leg toss w/ Partner	Lateral, HS, SL Raise	Prone Flexed Knee Hip Ext	Side-Ups	Low Walks Lateral
Rocky Pushups	Prone, ES, Flex Knee Lift	Toe Touchers	Lunge Good Mornings	
Wrestler's Bridge	Supine, HS, Flex Knee Lift	Back Hypers w/ Twist	Rocky Pushups	
Cossack Extensions	Crunch, Low Reach	L-Overs	Lunge Walks	
Crunch Situps-TBA	Crunch, Low Reach w/ Twist	Side-Ups	Pushup Toe Walks	
Decline Push-ups (SB)		Double Leg Eagles	Double Leg Eagles	
Prone SL Hip Extension		Low Level Bicycles		
		Pelvic Tilt ISO (90/90)		
		Pelvic Tilt ISO w/ Crunch		

SPECIAL THANKS

Rolando Greene - Purdue University

Niki Popp, Makaylah Roberts, and Alexander Roberts



GREAT RESOURCES

- **Horizontal Jumps - Planning for Long Term Development**
- **USTFCCA Symposium articles**
- **Charlie Francis articles and papers**
- **The Science of Hurdling and Speed - Brent McFarlane**
- **Articles by Joe Vigil**

**IOWA
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