# *SPEED TRAINING*

**By Bernie Dare & Beverly Kearney**

*This article presents a well-designed year-long periodized program geared toward the American collegiate season. The program is structured so that sprinting receives the highest priority, with all other elements subservient. Dare and Kearney at this time were assistant coaches in the women's track program at the University of Tennessee in Knoxville.*

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## GENERAL PHILOSOPHY

Within various limitations, we try to implement a training program which addresses the basic physiological and biomechanical needs of the sprints. These limitations include our facilities, weather, environments, school calendar and the scholastic and social demands placed on an athlete.

As well, our training program attempts to address the more specific and individual needs as the athlete matures and progresses, as we both (coach and athlete) learn about those individual responses to exercises.

We emphasize sprinting, particularly high-speed sprinting, as the most event-specific exercise, and as the backbone of the training program during all phases of the training year. Weight training and plyometrics are supplementary and secondary factors.

Our program includes six major elements: 1. speed training; 2. speed endurance training; 3. weight training; 4. plyometrics; 5. form work; and 6. relaxation.

We use a basic training cycle of six weeks, with weekly microcycles, and periodize to provide peaking/resting periods prior to major championships.

## SPEED TRAINING

In any sprinting event, sprinting speed[1] is the most important factor for predicting success. Even among 400m runners, it is usually the faster 400m sprinter who wins (other factors being equal).[2]

Any human exercise, such as sprinting, is a holistic activity and it is difficult to separate exercise into individual component parts. Nevertheless, for training purposes, we emphasize these separate components of sprinting speed development: sprinting ("full-speed," full recovery), relaxation, and power production.

Sprinting, or absolute speed, can be trained through repetitions of short distances (30-100m), done at or near full speed, in a relaxed manner. We emphasize relaxation in all of our speed training and do not want the athlete to strain to hold full speed (in training). We also emphasize variety in these sprint work intervals, which may help avoid a plateauing effect (stagnation) that is possible in repetitive exercise at the same intensity

These workouts are very similar to those used by Valentin Petrovskiy with Valeriy Borzov, and emphasize "complete" recoveries between repetitions and sets. Such recoveries are usually 3-4 minutes between reps, and 5-8 minutes between sets. Such long recoveries are used because fatigue is counterproductive to learning and developing intense neuromuscular movements.

The volume of work varies with the time of year and the athlete's ability to sprint, fatigue and tension free, and would typically be between 6-16 repetitions spread over 2-4 sets.

Typical workouts include: 1. 3x100 to 90-95%, 3x60 to 99%, 3x30 crouch start (CS), 99-100%, 3x30 CS, 95%; 2. 3x150, alternate 95% 30m with 75% 30m, 3x100 in-outs, 3x 50 finish 50s (medium build-up with last 25m at 99-100%); 3. 4x100 at 90% (accelerate to 90%), 4x100 in-outs, 6-8 starts alternating 100% for 15m with 100% for 30m starts. In all cases, the athlete avoids sprinting with fatigue or tightness, remaining relaxed and loose, even if she has to back off a bit.

Relaxation and power production are part and parcel of good sprinting. They are covered in greater detail below. With respect to speed training, relaxation facilitates proper neuromuscular recruitment patterns, and reduces antagonistic muscle activity, which can inhibit the contraction of the agonists (those muscles performing the major work of the movement).

Increased power increases speed by either increasing the number of muscle units involved in the contraction or the strength of each involved muscle unit. Both can result in increase of force against the ground, which can produce a longer stride or, more importantly, if more force can be created in less time, less ground contact time and greater stride frequency. (It is less ground contact time, and therefore greater stride frequency, which separates good and great sprinters[4]).

## SPEED ENDURANCE TRAINING

Speed endurance—the ability to maintain high speed sprinting—has two metabolic facets: alactic speed endurance and lactic (glycolytic) speed endurance.

These metabolic processes are not absolutely separable, and training the lactic system certainly trains the alactic system. The alactic system, or short speed endurance, predominates in exercise through the 200m. The lactic system, or long speed endurance, begins contributing to intense exercise after about 5 seconds, however, and probably becomes the dominant system between 10-20 seconds of activity.[5]

Due to various reasons, we separate in training the groups of sprinters who are better at the 100-200m (the "short sprints") from the 200-400m runners (the "long sprints"). This is due not only to the different energy demands between the two types of sprints, but also to reduce anxiety among short sprinters who dread training distances beyond 300m in length.

Although these workouts vary with the cycle being used at the moment, short sprinters do repetitions of 100-300m, with volumes of 2-10, depending on the length of the work interval and its intensity (speed).[6] Long sprinters do repetitions of 150-600m, with volumes of 2-12, with the same considerations as the short sprinters.

We categorize all of our speed endurance work as "interval" work, as there is a work interval (sprint) and recovery interval (rest) involved, rather than use the many other names (repetitions, extensive, intensive, etc.).

Then, we categorize our interval work by the intensity (speed), duration (time or distance), and degree of total fatigue created by each work interval and the total workout. The volume of the workout is then determined by the contribution of each interval to the total fatigue of the lactic acid or alactic energy system.

The workouts tend to fall into three categories, with some overlap:

1. *Low Anaerobic Stress Workouts,* characterized by low to medium intensity, short to medium durations, low to medium stress or fatigue—they approach total fatigue slowly.

These sprint workouts build up fatigue slowly, and are used with short recoveries between sprints (1-3 minutes, or 120 bpm heart rate). They are primarily used in the early cycles (prior to Christmas break), and may also be used for aerobic conditioning.

Examples: 3-4x150, 3-4x100, 3-4x50 to 90% with 1-2 min between reps, 2-4 min between sets; 8x200 with 100 walk, 100 jog as rest (1-2 min) at about 28-30 sec each; 10x150 accelerations to 90%, 1-2 mm rest; 5-6x 300 with 1-2 min rest, slow (48-54) 5x200 with 3 min rest, moderate (27-28); 6-12x400 fartlek (100 walk, 100 jog, 100 stride—65-70 pace, 100 sprint—90%); 3-4x300-200 1 min between 300 and 200, 3-5 min between sets, approx. 48-50 and 27-29.

2. *Medium to High Anaerobic Stress Workouts,* characterized by medium to high intensity, short to long durations, medium to high stress or fatigue—they approach total fatigue more quickly, each interval significantly contributing to total fatigue.

These sprints are run at or near event race speeds, they build up fatigue quickly. Relatively complete recoveries (to 100 bpm HR) are used, as each interval contributes significantly to total fatigue. The recoveries may be long (10-30 minutes), or progressive (5-8 min, 8-12 min, 12-15 min—longer with each proceeding work interval). Complete recoveries are used when doing these workouts near championship meets (in peaking/resting phases).

Examples: 3-4x300 (5-8 min rest 39-44, depending on ability); 1x600, 1x500, 20-30 min rest, very fast (1:30-1:38; 72-75); 500-300-200, progressive rests (72-75; 5-8 min; 39-42; 8-12 min; 24-25) or 500-300-200, progressive rests (72-75; 5-8 min; 39-42; 8-12 min; 24.25) or 500-300-200 with 5 min rests (76-80, 40-44, 25-27); 3x200 at 99% with 10 min rests; 1x300, 10-20 min rest, 1x200 at 99%; 300-300-200-200 with 5 min rests (40-43; 25-27).

3. *High Anaerobic Stress Workouts,* characterized by high intensity, medium to long durations, high to very high stress or fatigue—approach total fatigue very quickly—exhaustive workouts. These are very hard workouts and are not done in, or too near, a peaking phase (1½-2 weeks before Conference Championship). They are meant to simulate 400m race stresses, and are not done more often then once a week (usually once every two weeks).

Examples: 300-200 at race pace for 400 with 1 min rest, 20 min rest, repeat or 200-200; 1x500 at 99%, 20-30 min rest, 1x300 at 99%; 1x600 at 99-100%, go home; lx500 at 99-100%, go home. For the short sprinter—1 x200 at 99%, 3x100 at 99%, 3x50 at 99% all with 5 minutes rest.

In training speed endurance, we start with type 1 workouts and blend in to type 2 workouts, done below (slower than) the ability of the athlete, in our cycles before Christmas break. After Christmas, we begin with type 2 workouts, then add type 3 workouts when the athletes are ready for them. As we near championship meets, we eliminate the type 3 workouts and modulate the type 2 workouts (more rest, more speed). We do the harder workouts near the beginning of the week. We treat meets as hard workouts and have an easy or rest day after them.

## WEIGHT TRAINING

Weight training has two major rationales. One is to provide total body conditioning to prevent muscle imbalances, and to provide general muscle-tendon-ligament strengthening to reduce injury and better perform workouts. The second is to increase muscle group strength, through either increased recruitment of muscle fibers or strengthening of muscle fibers (both occur), to increase the ability to apply power to the ground.

Current training theory for weight lifting usually has the athlete begin with 8-12 repetitions of an exercise, proceeding to sets of 6 or less (at appropriate repetition maximums—RMs), as fast-twitch muscle fibers are not significantly trained above 6 RM. Variety, or set-rep changes are used throughout the year to avoid stagnation.[7] Maintenance work (3-4 sets of 5 reps, 1-2 week) should be done in the peaking/resting cycles.

Excluding warm-up sets, set-reps structure could be: 4-6 weeks general conditioning—3-4 sets of 8-10 reps; normal six week cycles—4-5 sets of 5 reps, or 5-5-3-3-(3), or 5-5-3-2-3; peaking/resting cycles—3 sets of 5 reps 1-2 x week as able-in all other cycles lift 3 x week or 5 x over a two-week period.

Current program: Weeks 1-4 (Cycle I): 4 sets of 10 reps. Weeks 5-9 (Cycle II): sets of 10-5-5-3-3-3. Week 10 (end of Cycle II): Max in key lifts. Christmas break: as able. This series is then repeated during the six-week cycles (Cycles Ill and V), with a maintenance program during the peaking/resting cycles (IV, VI). Weight lifted per exercise is expected to be progressive throughout the 5 weeks of 10-5-5-3-3-3, then maxed for 1 week, then going to a reduced resting phase (peaking/resting cycles).

The current lifts are: squats (parallel), bench press, arm curls, tricep curl (french press), incline press, leg press (machine), calf rise, hamstring curl (machine), leg extension (machine), and lunges.

## PLYOMETRICS

Done correctly, plyometric exercises are very intense, and their major rationale is to increase the ability to apply force to the ground very quickly. Since great sprinters are able to apply large force to the ground from small knee angles (less knee bend and less leg flexion throughout the force application) with short ground contact times, plyometric activities should mimic such actions. They should be very fast with short ground contact times, and should use shallow knee flexion.[8]

Our current major plyometric activity was to be flying start, single-leg hops (20m sprint start, 30m hopping). However, the skill level of our athletes in performing this activity was not high enough, and a learning process is now occurring.

Instead, we are going more general plyometric work, including bounding, skipping, and hopping without a flying start (200-600m of varied activity). We do these once a week and intend to do them twice a week (1 x week fast plyometric activity, 1 x week general plyometric activity) when skill levels are increased (we wish to avoid injuries caused by the unskilled doing an explosive activity).

## FORM WORK

Form work, or isolating and training various facets of sprinting form, has been a part of much sprint training. However, there are some questions as to its efficacy.

Recent biomechanical analysis of arm motion, for example, has failed to find any great significance in the specifics of arm motion to sprinting ability. Earlier studies also point out that neuromuscular coordination is very specific to the speed of movement. That is, form work has to be done at event speeds to properly stimulate and train the event neuromuscular coordination (firing sequence of the muscles). Form work does have a purpose. Its uses are: 1. as a warm-up acitivty; 2. to develop a feeling for muscle movements that can be transferred to high speed activity, and, 3. to strengthen certain muscle groups.

Under purpose 1, the slower, rhythmical form of sprinting loosens, stretches, and warms up the muscles for sprinting. Under 2, it can train the athlete to recognize what muscle groups are doing, and should do, during sprinting (of varying importance: the relaxed and quick recovery of the foot and leg after ground contact, creating a short, level movement efficiently; allowing knee lift to occur, as it will, without forcing it or preempting it, to drive or stab the foot quickly to and off the ground after knee lift has occurred). Under 3, the hamstrings, hip flexors and extensors, and ankle flexors can be strengthened.

Training examples: 3-5 repetitions, over 30-l00m for all drills—(1) fast high-knee drill, small steps (1-3 feet in length); (2) hamstring drill (kick foot to rear aggressively and quickly), small steps (1-2 feet in length); (3) high skips (emphasize ankle extension and hip extension—these are skipping strides with a large vertical movement); (4) quick foot drill (start slowly and pick up speed with each quick foot movement—about every third stride stab the foot to the ground very quickly, after the completion of knee lift (do not preempt knee lift)—this is similar to a hurdler's trail leg drill except for the more normal motion of the "trail" leg-alternate legs—at speed, return to normal sprint motion and ease off). We currently do such form work 3x/week as a warm-up acitvity, and think of it as rhythmical plyometrics.

Form work is probably best practiced as a holistic activity (the body acting as a coordinated whole) during near-full speed and full speed sprinting. At speed, the athlete concentrates on relaxation, smooth, quick recovery, and getting the foot to the ground and off quickly, after knee lift occurs.

Upper body relaxation can also be trained at the same time. It may be productive to emphasize individual form facets during acceleration and within a repetition, and then try to put everything together. Facets that can be emphasized: leg-foot drive, leg pull-through (recovery), allowing full knee lift, stabbing the foot to the ground quickly, and upper body form and relaxation.

## RELAXATION

"Relaxed" sprinters sprint better. Being able to turn muscle contractions on and off very quickly is the essence of sprinting. As such, it allows the next contraction to take place without "tension," which can hinder the speed and force of the contraction.[9]

Relaxation probably has inherent or genetic factors, but it can be aided through training. Like any learning process, for relaxation to become second nature, it must be practiced and concentrated on during sprinting. The athlete must concentrate on both individual muscle groups and total body relaxation. This can be a part of everyday's sprinting.

There is a second factor to relaxation. This involves learning to relax and visualize the process of sprinting and the race (useful in all events). Perceiving a positive, successful performance reduces "race" tensions, anxiety, and any apprehensions.

The procedure varies slightly, but it can proceed as follows, and can be done anytime, especially the day prior to or the day of competition: find a quiet, comfortable place to lie down; starting with the feet, contract and relax all the muscle groups, alternately, from toe to head; relax the entire body; visualize all aspects of the race in a positive way (winning—performing movements correctly) from warm-up to finish line.

If done with the aid of a coach, his or her use of a monotone, hypnotic voice is beneficial (see *Relax And Win,* by Bud Winter). Relaxed, positive, pre-race visualization of the event has been shown to have a positive effect on the stopwatch.

## TESTING

Tests for power, strength, speed, speed endurance, and starting mechanics can be useful in isolating weaknesses and individualizing the program to address such weaknesses.

Currently, we use the following tests, and test at the beginning or end of each cycle, or as needed for each athlete:

| | |
|---|---|
| 30m flying start* | tests for speed |
| 60m crouch start* | tests for speed endurance (alactic) |
| 30m crouch start* | tests for starting mechanics |
| 300m | speed endurance more specific to 400m |
| Body Fat% (underwater weighing) | tests fat% & excess weight levels |
| Standing Long jump | tests for power |

*We use the standards developed by Petrovskiy.

For the other tests we either use our own standards or those developed by the USOC/TAC Elite Athlete Project.

We are considering the use of other tests, as we determine those which are most predictive and beneficial to measuring and improving athlete performances.

We do not always give every test at each testing session/cycle. Rather, we use athlete progress and performances to dictate the area of testing. Also, competitive performances often furnish better results in the competitive season than tests such as these. Some of the tests are given within a cycle when indicated (e.g., athlete weight gain, speed or speed endurance when a weakness is indicated). Unfortunately, good weather and good facilities are a must for comparing test results to standards. Therefore, we find meet results more useful during the early competitive season (late November to early April are our cool weather months).

The basic Petrovskiy standards are listed below. For a given performance expectation in the 100 or 200, all three measurements should be at the same level. When the 30m CS, 30m ES, and 60m CS are at different levels it indicates a weakness (or perhaps strength) in one or more of the areas.

| 30m FS | 30m CS | 60m CS | l00m CS | 200m CS |
|---|---|---|---|---|
| 3.3 | 4.3 | 7.6 | 12.0 | 24.5 |
| 3.2 | 4.2 | 7.4 | 11.6 | 23.8 |
| 3.1 | 4.1 | 7.2 | 11,3 | 23.2 |
| 3.0 | 4.0 | 7.0 | 11.1 | 22.5 |
| 2.9 | 3.9 | 6.9 | 10.9 | 22.0 |
| 2.8 | 3.8 | 6.8 | 10.7 | 21.4 |
| 2.7 | 3.7 | 6.7 | 10.5 | 21.0 |
| 2.6 | 35 | 6.6 | 10.3 | 20.4 |
| 2.5 | 3.5 | 6.5 | 10.1 | 20.2 |

CS=crouch start
FS=flying start

Standing Long Jump Standard: 8'2" or better.
Body Fat % Standard(s): 6-12%.

## SUMMARY AND PERIODIZATION

Coaching is a continuous learning process. We try to use the best available information and technology within the limitations of our facilities, competition calendar, scholastic/social demands and athlete ability to perform.

We believe that sprinting is more important than other activities, and when time, weather, and facilities conspire, we slight those other activities. We also believe that a good basic program coupled with a good coach-athlete relationship can be more important than worrying about all the technical measurements and scientific feedback from those.

We change the training program in response to new information, but within the training year, unless there are serious contraindications, we make no substantial changes: i.e., we wait to the next year to evolve the program. We try to do those things that are most productive, and, due to time considerations and the ability or inability of an athlete's body to respond, try to avoid wasting time doing those things that have little impact on sprinting (i.e., slow activites such as excessive aerobic conditioning, slow sprinting—contradiction in terms, or slow "power" movements—again a contradiction).

We also believe that intuition and common sense are necessary in applying scientific knowledge to a particular training and competition program, and that the coach needs to develop an intuitive "feel" for each athlete and her ability to perform.[10] Unfortunately, these intuitive and "feel" skills are difficult to define.

With the accumulation of a great deal of technical knowledge by the coach, and with the experience of coaching the athlete over a period of time, an understanding of the athlete and her event can occur, and this can be a key element in coaching that athlete. Intuitive logic also plays a key part in applying scientific knowledge to the field situation. Such scientific knowledge and measurements of performance can establish parameters within which a training program should be structured, but it cannot establish an exacting model that everyone can or must follow for ultimate success.

The reasons for this are several (they are not innumerable): athlete's genetic variability will define that athlete's ability to respond to training. This variability might affect the specific exercises she can do and the intensities and volumes of training she can tolerate. Also, competitive calendars are created by schools and governing bodies often without regard to what is best physiologically and psychologically. Weather and facilities can limit the implementation of the "best" training program. And personal and social factors also affect an athlete's adaptation to training.

Because of these things there will always be inner and outer parameters within which the "best" training program can be found. It is up to the coach and athlete—intuitively, by feel, or (horrors) by a bit of hit and miss —to find this "best" or optimum training program.

The periodization for the 1986-87 year follows. It is geared to the Southeatern Conference/NCAA championships.

The transitions between cycles may be adjusted one week one way or the other, depending on athlete progress and weather. The activities within a week are scheduled to best fit the athlete's time and the availability of facilities. Specific workouts are also adjusted, to meet changing factors in the coach-athlete environment.

We do certain types of workouts at certain times in each cycle. The exact workout may not be scheduled ahead of time, but the intensity and duration of the workouts are. We also expect the 6-week cycles to be progressive in intensity, with Cycle I and II being progressive in duration, while the others might be regressive in duration (volume).

**Sample Weeks (Microcycles)**

Below are listed examples of workouts that correspond to the types of training for the cycles listed. They can be used as a general guide to what we do but the specifics of our training programs are adjusted to take into account athlete recovery from workouts, facilities and weather, and the necessities imposed by meets and travel arrangements. Generally, such changes will be reflected in whether we do speed endurance on Mon-Wed, or Tue-Thur, and which days we rest/travel.

Cycles I & II

Mon: Speed and technique work—6-12 reps of 30-150m; plyometrics—3x3x50m fast hops, or 200-600m general (bounding, skipping, hops).

Tue: Speed endurance—100-200: 4000, 5 min rest; 200-400: 500-300-200 or similar; weights.

Wed: Light activity—e.g., basketball; stretch and jog; 6x100; rest.

Thu: Repeat of Monday, for the most part; may wish to do plyos on Fri or Sat; e.g. 3x100 accelerations to 90%, 3x100 in-outs, 6x30m starts.

Fri: Speed Endurance—short sprinters: 6-8x400 fartlek; long: 8-12x400 fartlek, or 8x200.

Sat: Play day (alternate activity such as basketball, soccer, etc.); or interchange Fri and Sat.

Sun: Weights on own.

Cycles Ill & V

Mon: Speed and technique—8-16 reps 30-l00m; plyometrics.

Tue: Speed endurance—short: 300-300-200-200, or 300-200; long; 500-300, or 300-200/300-200 1 min/20 min rests; or 600-500-300-200; weights.

Wed: Depends on recovery—light speed technique; general plyometrics.

Thu: Speed technique or speed endurance as needed by athlete; weights (e.g.: 6-8x200, 8x150, or 4x150, 4x100, 4x50).

Fri: Rest/travel/light

Sat: Meet or time trial or speed endurance/speed technique as needed (light activity if needed).

Sun: Weights on own.

Peaking Cycles IV and VI

Mon: Speed and technique: 3x100, to 95%; 3x60m finish 60s; 6 x starts.
Speed endurance-3x200 with 10 min rest at 99%, or 1x300/1x200, with 10-20 min rest at 99%.

Wed: Light as needed, weights.

Thu: Speed and technique: 6-10x30-100m.

Fri: Rest/travel if meet Sat; light or rest if not.

Sat: Meet or as needed (e.g., 2x200 with 10-15 min rest @ 95-99%).

Sun: Meet?? or light, weights on own.

Mon: Light speed endurance—1x200 99%, 3x100 accelerations to 95% or in-outs, 3x50, 20m running start, 99%.

Tue: Speed Technique as needed—8-12 reps 30-100m

Wed: Travel/light shake-out: 6-8x30-60m accelerations to 90-95%.

Thu: Rest or light speed technique: 6-8x300-60m.

Fri: Meet (Qualifying rounds?)

Sat: Meet (Finals)

Sun: Meet? Rest/travel?

## FOOTNOTES

1. Sprinting speed is used to denote the ability to sprint at maximum speed where fatigue is not a factor—e.g., time over a 30m flying start sprint.

2. "A Study of the 400 Meters," Letzelter, Manfred and Eberhard Stroot, FRG, *Sprints And Relays,* Jess Jarver, ed., Tafnews, 1983, pp 46-49.

3. "Modern Trends in Strength Training", Tschiene, Peter. *The Throws,* Jess Jarver, ed., Tafnews, 1980, pp. 17-19.

4. "The Biomechanical Analysis of Sprinters," Mann, Ralph, *Track Technique,* No. 94, Winter 1986, p. 3000-3003.

5. Various sources list the endurance of the ATP-CP (alactic) energy system as 5-15 seconds of 100% activity. In practice, it can be seen as the dominant energy system for the 100 and 200.

6. As of December 1986, we have some short sprinters who feel they are missing something from not doing repetitions of 500m or the like. We are adjusting the training schedule to meet this psychological "need."

7. "Modern Trends in Strength Training", Tschiene, Peter, *The Throws,* Jess Jarver, ed, Tafnews, 1980, pp. 17-19.

8. "The Biomechanical Analysis of Sprinters," Mann, Ralph, *Track Technique,* No. 94, Winter 1986, pp 3000-3003, (USOC-TAC Elite Athlete Project).

9. The general words "relaxed" and "tension" are used in lieu of a long explanation of antagonist and agonist muscle activity, and the contraction-relaxation sequences of the sprint stride.

10. By intuition, or intuitive logic, we mean the ability to make conclusions, judgments, or perceptions based on a deep background and reasonably thorough knowledge of the area, without direct inductive or deductive links to the conclusions. Intuition, here, is a well-reasoned hunch hopefully based on experience, previous knowledge, and measurements.

**TRAINING CYCLES: 1986-87**

| Dates: | Cycle: | Training Emphasis: | Training Days (per week) |
|---|---|---|---|
| Sept. 21 to Oct. 25 | I<br>4-5 weeks | 1. General Conditioning<br>2. Speed Development | 2 days—speed development;<br>3 days—weights (4x10);<br>1-2 days—speed endurance (low intensity);<br>2 days—aerobic endurance;<br>1 day—play day. |
| Oct. 26 to Dec. 6 | II<br>6 weeks | 1. Speed<br>2. Speed Endurance<br>3. Technique<br>4. Power | 2 days—speed/technique;<br>2 days—speed endurance (low to moderate intensity/stress);<br>3 days—weights (10-5-5.3-3-3);<br>1-2 days—plyometrics. |
| Dec. 7 to Jan. 3(7) | IIA | 1. Maintenance and General Conditioning | Christmas break: varies with athlete's ability to train. |
| Jan. 4(8) to Feb. 14 | III | 1. Speed Endurance<br>2. Speed and Technique | 2 days—speed and technique<br>2 days—speed endurance (medium to high stress);<br>3 days—weights (10-5-5.3-3-3);<br>1-2 days—plyometrics;<br>1 day—rest/travel;<br>1 day—competition. |
| Feb. 15 to Mar. 14 | IV<br>4 weeks | 1. Resting phase for Indoor Championships<br>2. Speed/Technique | 2 days—speed and technique;<br>1 day—speed endurance (longer recoveries);<br>1-2 days—weights (maintenance);<br>1-2 days—rest/travel;<br>1-2 days—competition. |
| Mar. 8 to Mar. 21 | IVA<br>2 weeks | 1. Rest/Refreshing Cycle<br>2. Maintenance | 2 days—speed and technique;<br>1 day—speed endurance (light);<br>1-2 days—weights (maintenance);<br>2-3 days—rest or light activity. |
| Mar. 22 to May 2 | V<br>6 weeks | 1. Speed Endurance<br>2. Speed and Technique<br>3. Power | 2 days—speed and technique;<br>2 days—speed endurance (high);<br>3 days—weights (10-5-5.3-3-3);<br>1.2 days—plyometrics;<br>1 day—rest/travel;<br>1 day—competition. |
| May 3 to May 16(17) | VIA<br>2 weeks | 1. Peaking/Resting for Conference<br>2. Speed and Technique | 2 days—speed and technique;<br>1 day—speed endurance (fast, long recoveries; avoid high fatigue);<br>1-2 days—weights (maintenance);<br>2-3 days—rest/travel/light;<br>1-2 days—competition. |
| May 17(18) to May 23 | VIB<br>1 week | 1. Rest/Recovery<br>2. Speed/Technique<br>3. Maintenance | 2 days—speed and technique (light);<br>1 day—speed endurance (light);<br>1-2 days—weights (maintenance);<br>2-3 days—rest or light. |
| May 24 to June 6 | VIC<br>2 weeks | 1. Peaking/Resting for NCAA<br>2. Speed/Technique | 2 days—speed and technique (fast and light);<br>1 day—speed endurance (fast, long recoveries);<br>1.2 days—weights (maintenance);<br>1.2 days—rest/travel/light;<br>2-3 days—competition. |
| June 7 to June 13 | VID<br>1 week | 1. Rest/Recovery<br>2. Speed/Technique<br>3. Maintenance | 2 days—speed and technique (as needed);<br>1-2 days—speed endurance (as needed)<br>1-2 days—weights (maintenance);<br>2-3 days—rest or light. |
| June 14 to June 27 | VIE<br>2 weeks | 1. Peaking/Resting for TAC | 2 days—speed and technique;<br>0-1 day—speed endurance;<br>0-2 days—weights (maintenance);<br>2.3 days—rest/travel/light;<br>2-3 days—competition. |