Feb. 11, 2015

Competition-Coaching Introduction Advanced (T2T)

Step 10:

Designing a yearly training plan

Reference Material
for Dryland Workshop

TABLE OF CONTENTS

This section on “Designing a Yearly Training Plan” complements information provided in section 6 of the Learning to Train (Dryland) Reference Material and section 7.2 of the Learning to Train (On-Snow) Reference Material, and is directed primarily at supporting you in your role as a coach working with athletes in the Training to Train stage of development.

10.1 Periodization

Periodization is time management applied to training. As a planning technique it provides the framework for arranging the complex array of training processes into a logical and scientifically based schedule to bring about optimal improvements in performance.

Periodization sequences the training and competition components into months, weeks, days and sessions. It is situation specific, depending upon priorities and the time available to bring about the required training and competition improvement.

Longer term planning involving the training/competition year and multiples of years is required in order to truly formulate a logical and sequenced overall activity/sports experience.

In the context of long-term athlete development, periodization connects the stage the athlete is in to the requirements of that stage. It is therefore an essential component of optimal sports programming and athlete development.

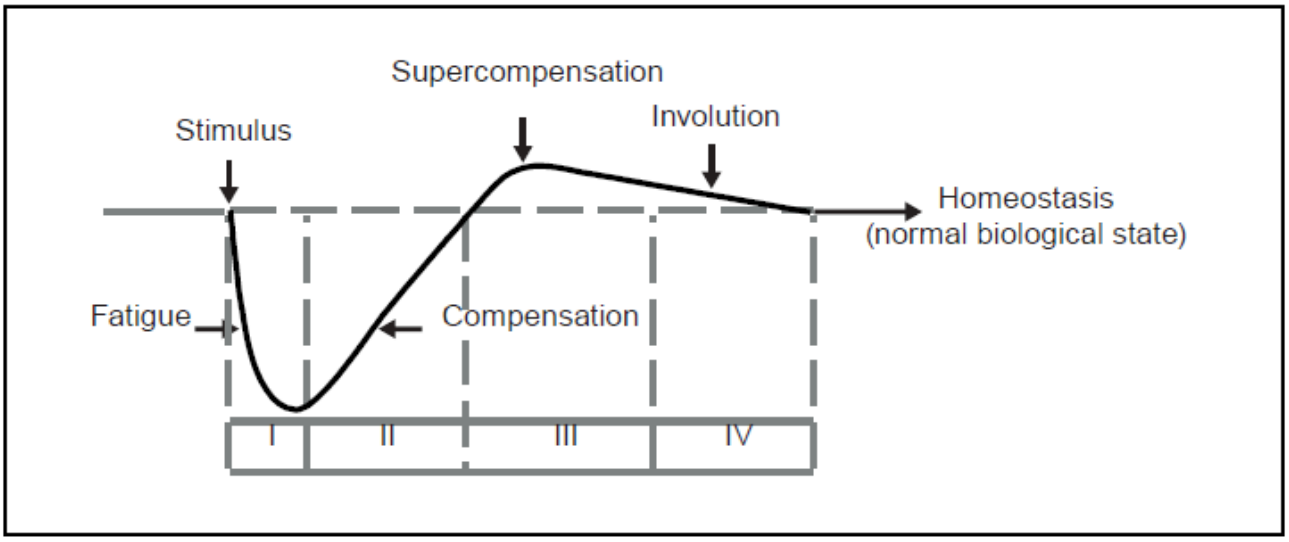
The term originates from the word “period” which divides time into manageable training phases. Basically, it refers to the systematic manipulation of training variables into manageable time chunks that range from days to years. The planning process is based on an athlete’s competitive season, with the goal being to permit peak performance to be achieved for important competition(s). Periodization has also been explained as “the integration and sequencing of sport science, sport medicine and sport-specific technical-tactical activities.”

The principles of periodization for training are based on a theory called “General Adaptation Syndrome (GAS)”, whereby the body first goes through an alarm reaction to a stress then with continued exposure to the stress adapts through supercompensation. However, if the body is exposed to the same stress for too long, the body actually will decline in its adaptation and enter a stage of exhaustion. Although this theory presents a rather simplistic view of training adaptation, the principles help us to understand the thinking underlying the importance of planning and periodization.

The “theory of supercompensation” also explains the necessity of a periodized

training plan. The cycle of supercompensation is seen in Figure 10.1 below. In Phase I, the athlete experiences fatigue following a training session. In the rest period, Phase II, biochemical stores are replenished and actually exceed normal levels. In Phase III, the body of the athlete rebounds and supercompensation occurs, producing an adaptation above the line of homeostasis, which causes an increase in athletic efficiency and productivity. If there is a lapse in time before the next athletic workout, Phase IV – involution - occurs, whereby the athlete can lose the benefits of the supercompensation phase.

Figure 10.1: Supercompensation Cycle of a Training Lesson (modified from Yakovlev, 1967)



10.2 Phases of a Yearly Training Plan (YTP)

Cross-country skiing is considered a monocycle sport because there is only one competitive season. Therefore the entire ski year, from the beginning of May in a given year to the end of April the following year, is viewed as a monocycle. Annual training plans can then be divided into three units - from largest to smallest in scope - the macrocycle, mesocycles and microcycles.

10.2.1 Macrocycle

Within the year-long plan, the macrocycle is broken into three macrocycle periods:

- **Preparation Period.** During the preparation period, the athlete's focus is on developing skills and fitness graduating from general to more specific skills and fitness. This phase provides the conditioning base upon which the training and competitive year can be built.

The preparation period is further broken into two phases:

- ✓ The **general preparation phase** is when the athlete returns to regular disciplined training in the dryland season. The focus of this phase is on building an aerobic base and general strength. The length of the phase is dependent on the age and experience of the athlete and/or the date of the first major competition, but typically runs from May to August or September.

- ✓ The **specific preparation phase** is focused on more ski-specific training, technical and tactical training, and improvement in both aerobic and anaerobic capacities as well as power. The phase typically lasts from August or September to November or December, but once again is dependent on the age and experience of the athlete and/or when the first major competition takes place.

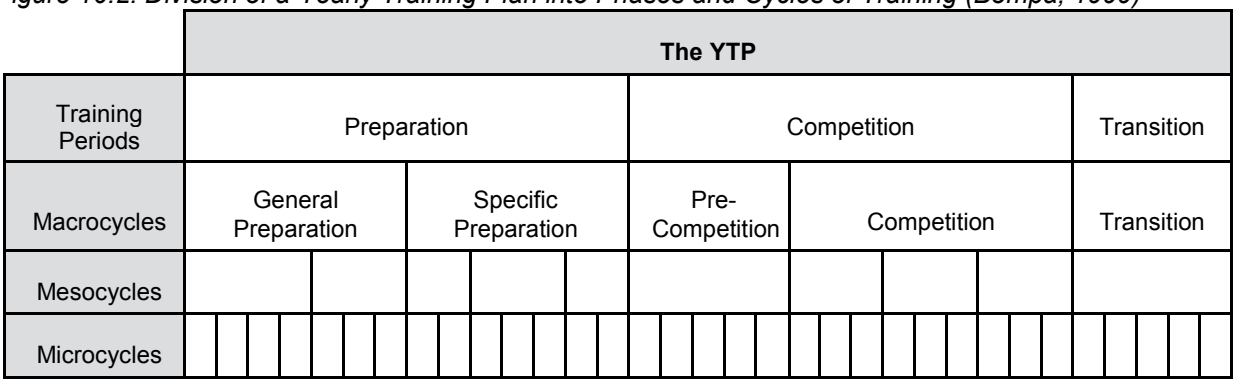
- ❑ **Competition Period.** The competition period is also broken into two phases: 1) the pre- competition phase; and 2) the competition phase:

  - ✓ The **pre-competition phase** focuses on a return to on-snow ski technique. Aerobic capacity is trained, while the anaerobic capacities of the preparation period are maintained. Races are typically trained through and used for experience only. This phase provides an opportunity for the athlete to test and evaluate the skills and abilities that were developed during the specific preparation phase. The pre-competition phase typically lasts from the beginning of good skiing to the first formal races, mid-November to either mid-December or early January.

  - ✓ The **competition phase** encompasses the part of the season when the major regular season competitions take place. The training pattern is typically altered to accommodate the intensity of racing. Volume of training is reduced, while intensity of training is increased. The focus is on improving anaerobic capacities while maintaining specific strength and core strength.

- ❑ **Transition Period.** The transition period is also called the **off-season**, and typically runs from April to May. This period provides the athlete with time to maintain condition, but without the demands and stresses of racing.

Figure 10.2: Division of a Yearly Training Plan into Phases and Cycles of Training (Bompa, 1999)



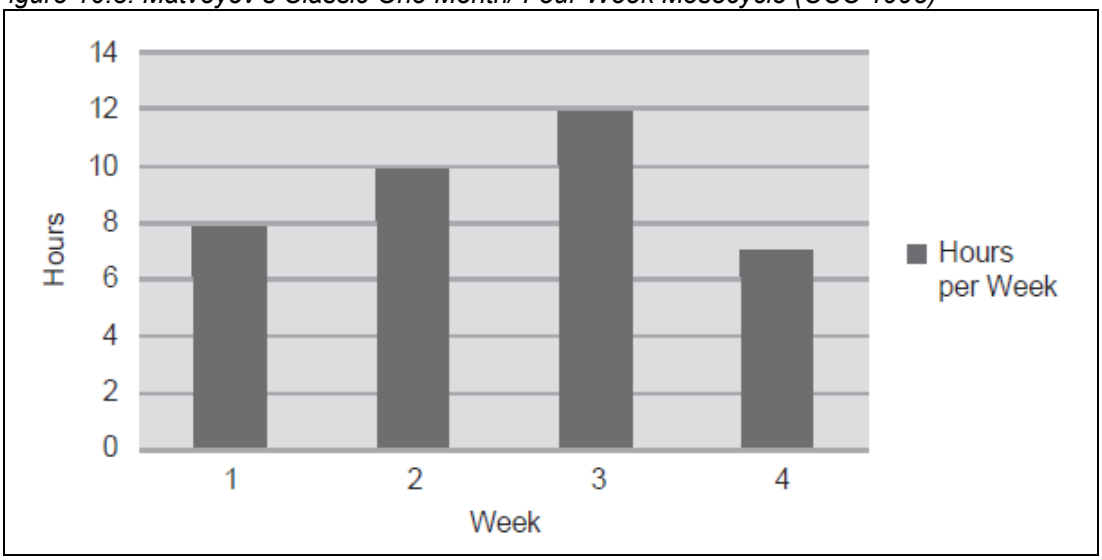
10.2.2 Mesocycles and Microcycles

A mesocycle consists of a group of weeks (microcycles) that have a common goal or focus. For example, the objective of a mesocycle early in the general preparation phase may be to build aerobic capacity through long distance runs. The goal for a mesocycle in the pre-competition phase may be to make final technical and tactical preparations for the upcoming competition season.

Matveyev's classic periodization model used a natural one month cycle to construct "meso" or monthly periods of four weeks (see Figure 10.3). Within each monthly mesocycle, the volume and intensity gradually increased in each microcycle, until the last week which concluded in a decrease in load and volume for a rest and recovery effect.

In cross-country skiing, four microcycles normally make up one mesocycle, although some programs are known to have three or five weeks per mesocycle. A calendar week is typically used as the microcycle for most training programs, primarily because it is easiest to work with and understand, as well as the simplest to adapt to an athlete's schedule.

Figure 10.3: Matveyev's Classic One Month/ Four Week Mesocycle (CCC 1995)



10.2.3 Microcycle Phases

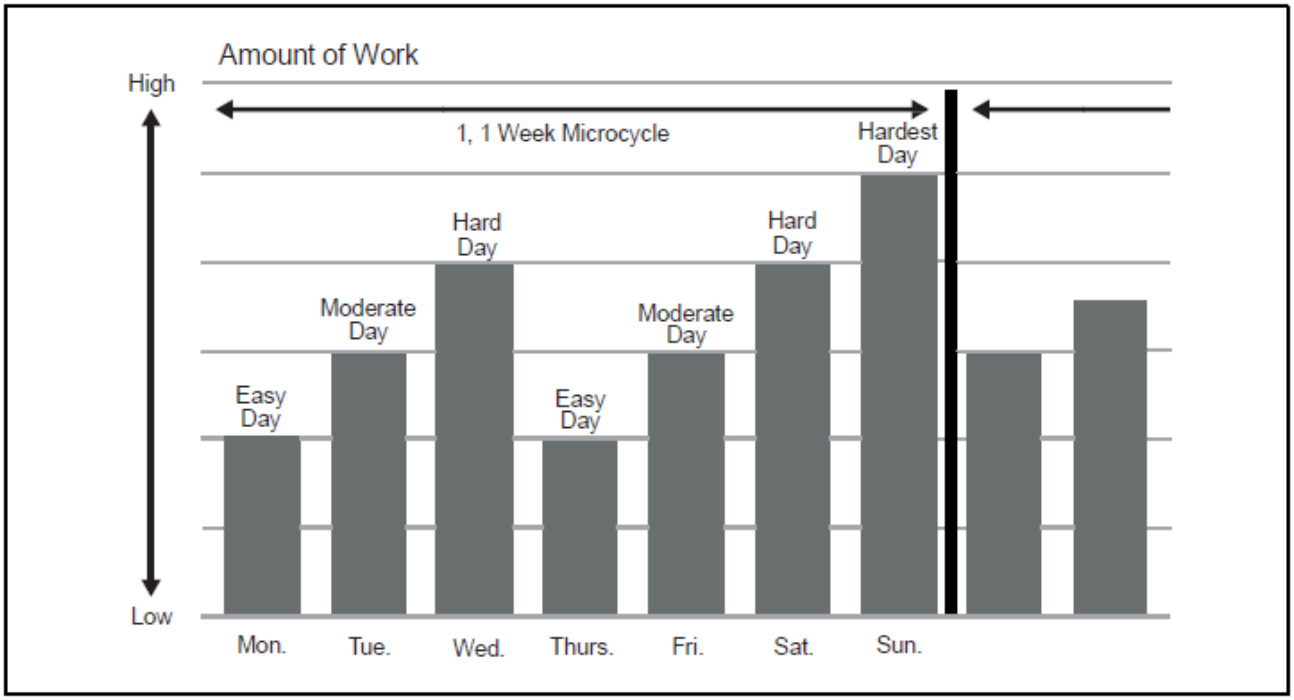
Microcycles are the smallest basic units of training plan design which have specific objectives. Daily training sessions may also have specific objectives, but they are typically adapted to reach the objective(s) of the microcycle.

The type of daily training must take into account the requirement of appropriate recovery. Typically, the recovery phase following a training session is 24 hours. However, in order for supercompensation to be optimal, recovery is dependent on the type and intensity of training. For example, supercompensation can occur after

an aerobic endurance session with only 6-8 hours of rest. However, a high intensity training session may require more than 24 hours and upwards of 36-48 hours. Also, an elite athlete may not experience any supercompensation until a second or even a third workout is completed in a day. Likewise, in order to optimize supercompensation benefits, the recovery window is best if kept short. However, the athlete must alternate energy systems; otherwise over-fatigue is likely to take place.

For this reason, a microcycle may follow the pattern of Figure 10.4 which shows a graduation from easy to medium to hard from Monday through Wednesday, followed then by four more days of graduated training from easy to hardest Thursday through Sunday. This microcycle takes into account that the athlete is more likely to fit in a longer or harder workout(s) on the weekend due to a typical athlete's work or school schedule. The athlete's personal schedule must always be taken into account when developing the microcycle.

Figure 10.4: A Microcycle with Daily Training Emphasis (CCC, 1995)



10.3 Steps to Designing a YTP

When designing a YTP, for an athlete, the following steps need to be taken into consideration:

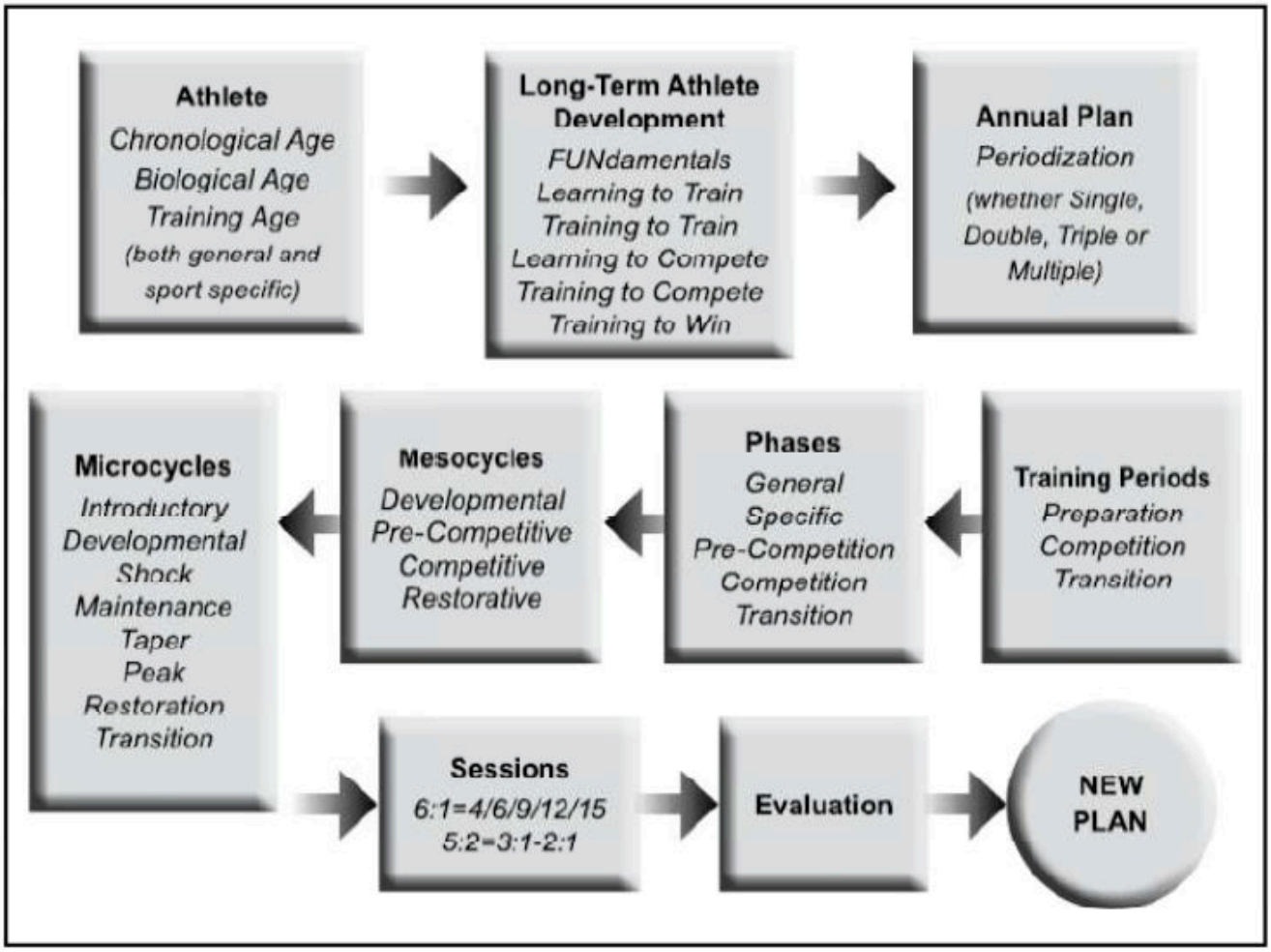
- Step #1 - Assessing the Current Status of an Athlete
- Step #2 - Drafting a YTP
- Step #3 - Planning Mesocycles and Microcycles
- Step #4 - Quantifying Training Loads - Volumes and Intensities

- Step #5 - Monitoring, Re-Evaluating and Adjusting Training Plans

10.3.1 Step #1 - Assessing the Current Status of an Athlete

Before you can design an effective, individualized annual training plan you will need background information on the athlete for whom you are developing the plan. For example, it will be important to know the athlete's developmental age, training age, technical skill level, motivation, etc. The best way to do this is to undertake a thorough assessment of the athlete before you begin.

Figure 10.5: For Whom is the Training Program Designed? (Balyi, 2009)



- **Interview.** An initial interview with the athlete will produce necessary information to create a new training plan, such as: past training history; biological and developmental age; whether the athlete has a one sport competitive season or is focusing on two or more sports; school, work and social commitments; past history of injury, etc. Ask questions that will assess the motivation level, work ethic, etc. Viewing a past training diary will provide volume and work capacity history, and will also give an indication of past motivation levels, work habits, social stresses, etc.
- **Analyze Past Medical, Field and Lab Tests.** Identify the biological age,

developmental age and training age of the athlete through past PHV tests and questions. Pin-point strengths and weaknesses by looking at past results in regular field and/or lab tests conducted for medical health, physiology, flexibility, psychology, etc. If no tests were completed, conduct some basic physiological and strength tests to assess current ability level and health – e.g. critical speed test, National Ski Team strength test, medical exam, etc. Evaluate progress from year to year by looking at the athlete's Canada Points List (CPL) statistics over two or more years for both distance and sprint results. Review a video of the athlete to ascertain current technical skill level.

- **Set Goals and Objectives.** Together with your athlete, develop long term training and racing goals. Next, develop short-term objectives that will help them achieve their long-term goals. Determining goals and objectives will help your athlete draw a road map to their final, future destination. Some points to keep in mind:
  - ✓ The annual training program is the "road map". It will guide coach and athlete by telling them when they are off course, when to change direction, where to go next, how long it will take to get there and how far the athlete has come.
  - ✓ Goals should be specific, realistic and measurable. For example, a goal is more effective if it is worded "I want to increase my distance CPL by two points each year" rather than "I want to improve each year".
  - ✓ Goals need to be flexible, and to be re-evaluated regularly.
  - ✓ If an athlete writes their goals down they are more likely to "buy-in" and stay motivated.

10.3.2 Step #2 - Drafting a YTP

In this step……

- Refer to section 10.3.6 to see a typical spread sheet used to draft a YTP for a cross-country skier.
- Begin by identifying the beginning and end of the training/competition year. For cross-country skiing, the beginning of the year is typically the first Monday in May and the end is the last Sunday in April.
- Once the beginning and end of the training/competition year is determined, plug relevant dates into the calendar, looking in particular at the year's competition schedule and the athlete's goals. Work from left to right along the spreadsheet and pencil in the major and minor competitions the athlete will be attending. The athlete and the coach should rank the competitions as important or developmental, and identify the competitions for which the athlete will aim to peak. This will later help determine the start and end of the competition period, as well as the pre-competition and competition phases within it. Pencil in any training camps the athlete will attend during the time that encompasses the general preparation phase, the specific preparation phase and the pre-competition phase.
- Determine the length of the general preparation, specific preparation, pre-competition and competition phases. Typically, a more experienced or elite athlete will require less general preparation time and more specific preparation time, compared to a less experienced or beginning athlete who needs a great deal more time in the general vs

the specific preparation phases.

- Determine the length of the transition period. Younger athletes may use a six week transition or recovery from the season, beginning as early as mid-March or on completion of the National Championships (whichever occurs later) and ending at the beginning of May. For older, more experienced athletes, the transition phase can last four weeks or less, starting in early April and ending at the beginning of May.
- List any other events or stresses that may affect training or competition preparation. Family and social events (e.g. family vacations) and school commitments (e.g. scheduled exams, school breaks, graduation) will all have potentially positive or negative effects on training focus and recovery.
- Take into account the Athlete Development Grid for T2T -1 and T2T - 2 stages of development (see section 1.2 of this Reference Material).

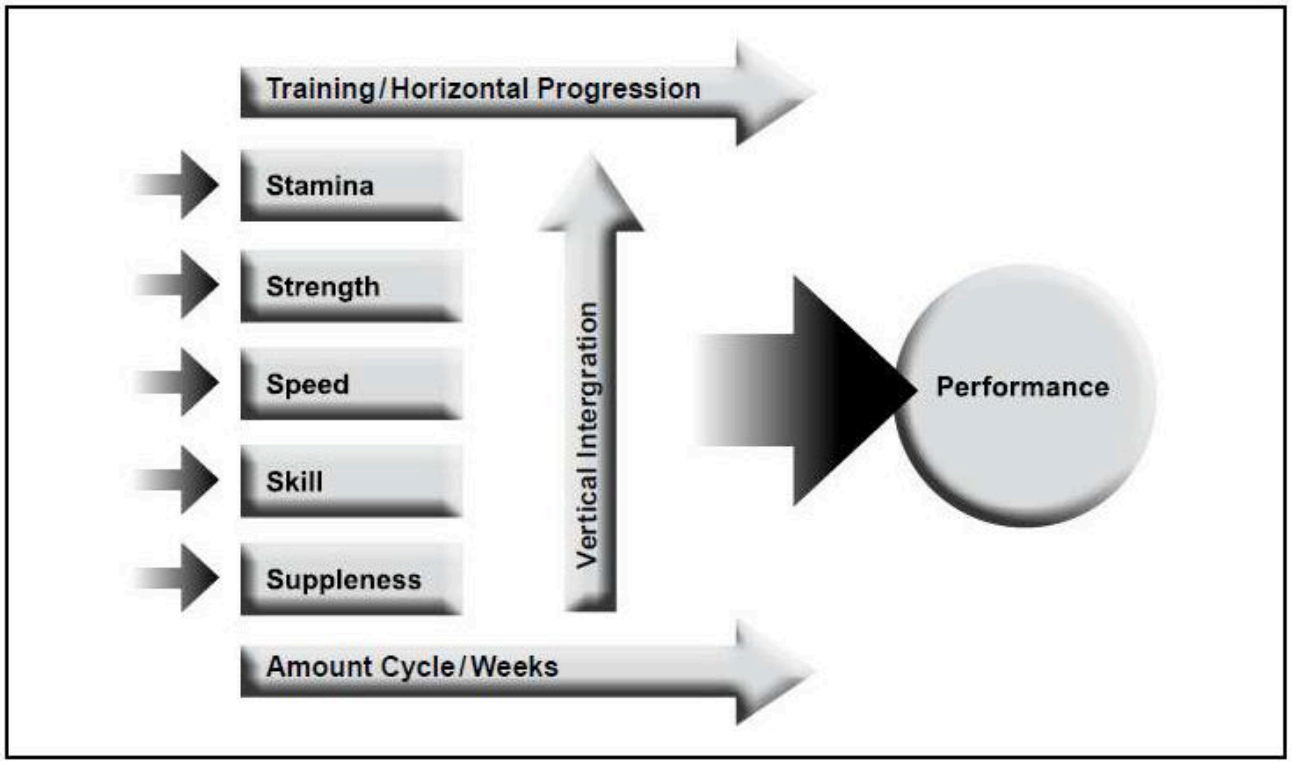
10.3.3 Step #3 - Planning Mesocycles and Microcycles

Once all necessary information is entered on the spread sheet, you and your athlete can write in mesocycles.

- If using a four week mesocycle, work backwards from the competition phase to determine the pre-competition phase. From the first competition, work backwards to create the specific preparation phase (dependent on how experienced the athlete is; see step #4 – Quantification of Training Loads) and backwards again to create the mesocycles of the general preparation phase.
- You may determine that four week mesocycles are not ideal for all phases, and you may need to alter mesocycles to fit the objectives and goals of the athlete.
- Determine the focus and objectives of each mesocycle, using the five basic S's of training and performance: stamina (endurance); strength; speed; skill; and suppleness (flexibility).
- For more detailed information on the five S's of training and performance, refer to section 2.4.2. These items can be listed as priorities along the left hand column of the spreadsheet as seen in Figure 10.6. Not only is horizontal integration important for an effective training plan, but correct vertical integration also contributes towards the desired outcome.

The "art of coaching" is the integration of the five basic S's into a training program. Source: I. Balyi.

Figure 10.6: Horizontal and Vertical Integration of the Five S's (Balyi 2009)



10.3.4 Step #4 - Quantifying Training Loads: Volumes and Intensities

Using the LTAD "Windows of Trainability" as a guideline, as well as age, gender, strengths and weaknesses of the athlete and preferred peak, the coach now needs to assign a percentage of TIME allotted to the first three S qualities (stamina, strength and speed) during each phase of the YTP. This will help you determine hours for each of these areas of training. The total for Stamina, Strength and Speed should add up to 100%.

Quantify % of Time spent on each Training and Performance "S" Characteristic in each Training Phase

FIVE S's	GENERAL	SPECIFIC	PRE-COMPETITION	COMPETITION
Stamina				
Strength				
Speed				
TOTAL				

Because athletes often don't separately count the number of hours spent working on flexibility or skill, it is not important to quantify the number of hours spent on the final two S qualities. However, the coach should determine the level of FOCUS of both of these training items as either: high, medium or low for each of the training periods.

FIVE S's	GENERAL	SPECIFIC	PRE-COMPETITION	COMPETITION
Skill				
Suppleness				

The example below illustrates how to quantify % of Time and Focus spent on each training and performance "S" characteristic in each training phase for one specific athlete. *Please keep in mind that coaches and athletes often refer to the five S's in different terminology:*

***Stamina** = volume, aerobic, base training, zone 1, Long Slow Distance (LSD), etc.*

***Strength** = weights, specific strength, plyometrics, circuit training, core strength, maintenance, etc.*

***Speed** = intensity (AnT, maximal intensity, MVO2), races, sprints, lactic acid tolerance, etc.*

FIVE S's	GENERAL	SPECIFIC	PRE-COMPETITION	COMPETITION
Stamina	75%	70%	65%	60%
Strength	15%	15%	10%	5%
Speed	10%	15%	25%	35%
TOTAL	100%	100%	100%	100%

FIVE S's	GENERAL	SPECIFIC	PRE-COMPETITION	COMPETITION
Skill	Low	High	Med	Low
Suppleness	Low	Med	Med	High

Looking at the "Yearly Training Plan Guidelines for T2T -1, and T2T – 2 athletes (sections 10.3.7 and 10.3.8), each mesocycle and/or training phase has a priority for each of the Five Training and Performance "S's".

When referring to the Five Training and Performance S's within each microcyle, there is an ideal sequence for training. Firstly, quality should come first, followed by lower quality training within the complementary training session. Therefore, skill before speed; speed before power and strength; power before strength; and strength before endurance.

Other rules of microcycle planning for Training to Train through to Training to Win athletes include:

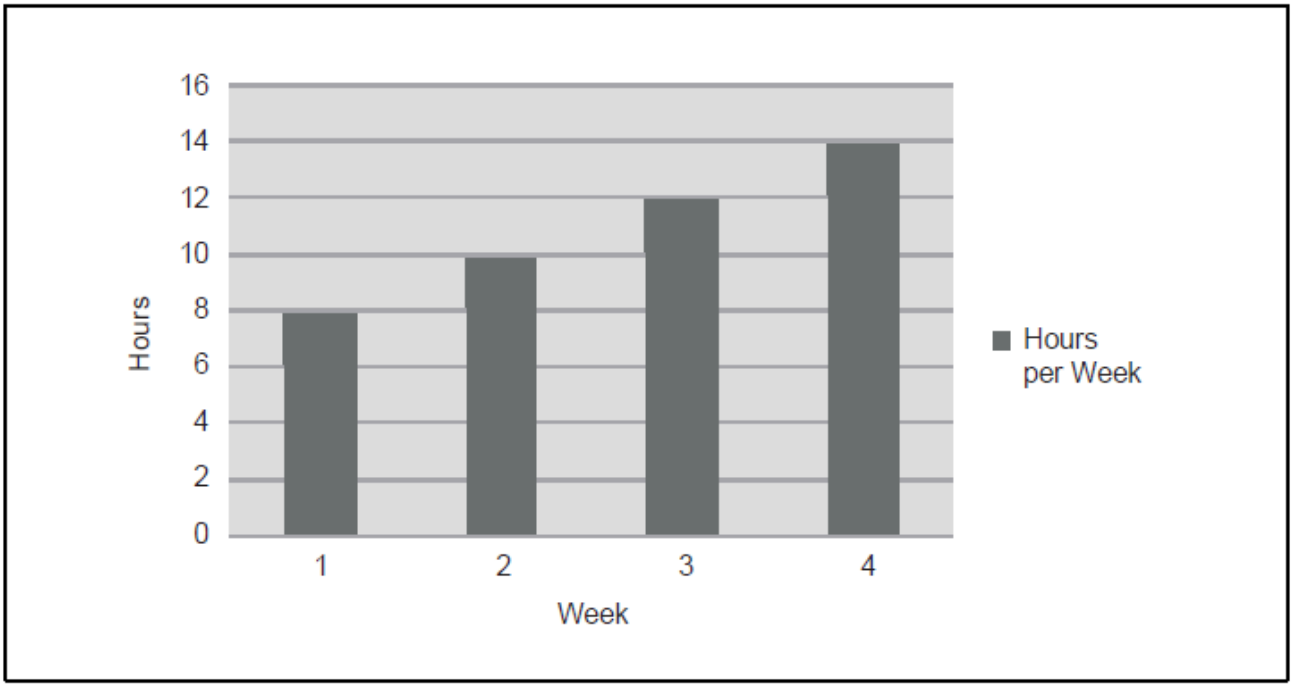
- Three training sessions per microcyle is maintenance, therefore showing only slow improvement of beginner and/or intermediate athletes
- Four training sessions per week are required for beginner and intermediate athletes to induce significant improvement.
- Learning to Compete athletes through to Training to Win athletes may need to train at a higher frequency (more times per day) due to the effect of the "ceiling limit" or effect of diminishing returns over time. i.e. 9-12 times per week is not uncommon for elite cross country skiers

Types of Mesocycles

The arrangement of microcycles within a mesocycle will be dependent on the age and experience of the athlete, and the focus or objectives of the meso and macrocycle. A T2T athlete in the general preparation phase will benefit most from an increasing fatigue mesocycle or an "upload" mesocycle of a ratio 3:1.

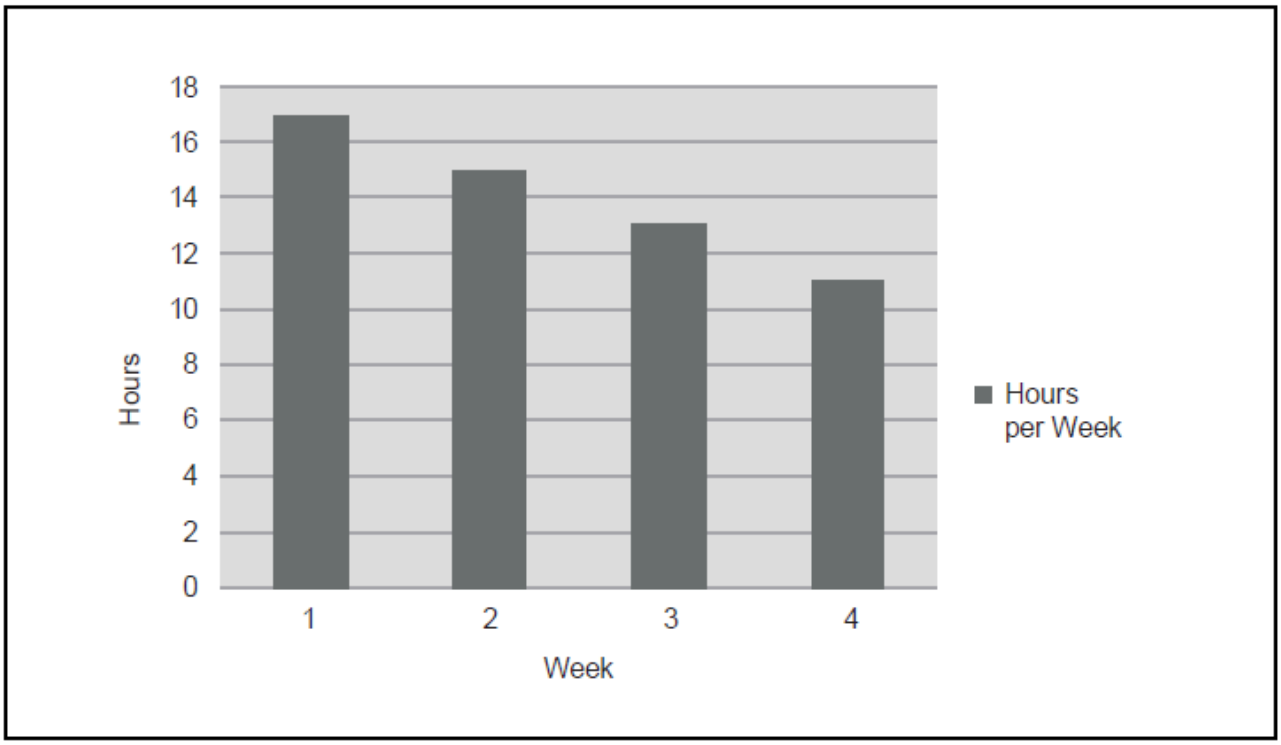
- **Upload Mesocycle.** An "upload" mesocycle of three load-increasing microcycles to one recovery microcycle promotes physiological adaptation and supercompensation to take place through increasing fatigue (see Figure 10.7).

Figure 10.7: Upload Mesocycle - T2T Athlete (Balyi, 2009)



- **Download Mesocycle.** For a more elite athlete, it may be more advantageous to work on quality first for maximum adaptation. In this case, a "download" mesocycle is used whereby the load decreases from week one to week four (see Figure 10.8).

Figure 10.8: Download Mesocycle – Elite Athlete (Balyi, 2009)

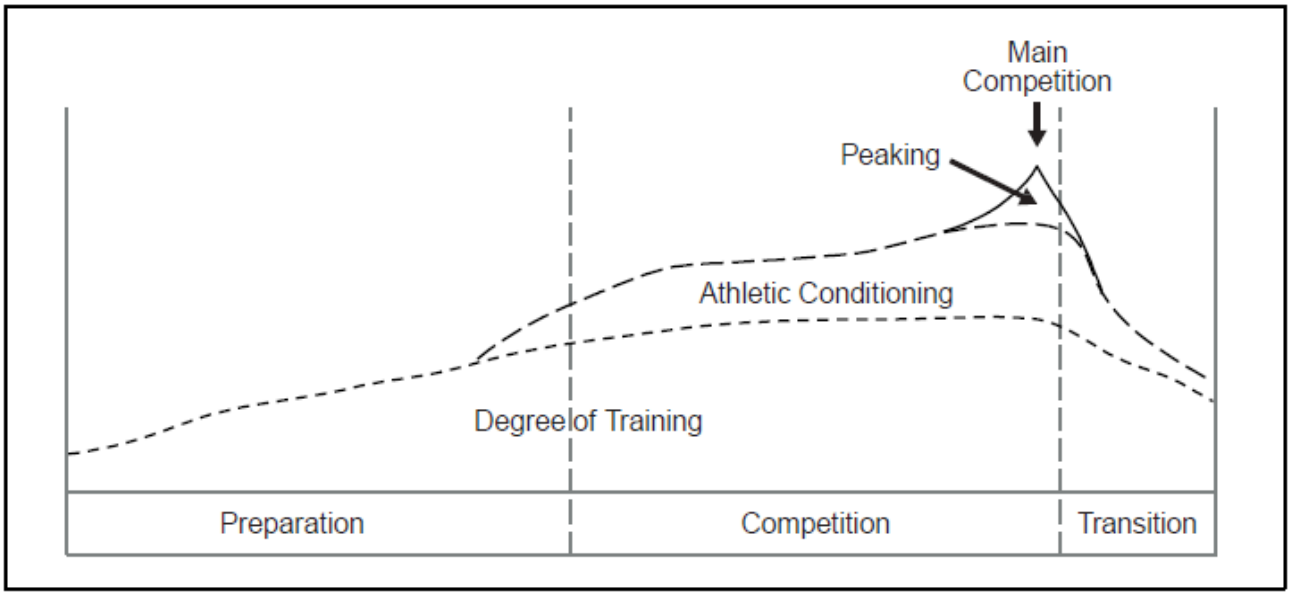


- **Other Traditional Mesocycles**

Work to Rest Ratio (# of Work to # of Rest Microcycles)	**Recommended Training Phase**	**Pros and Cons**
4:1	General Preparation Phase	Too fatiguing. Only 50% recovery
3:1	General Preparation Phase	80% recovery. Ideal for supercompensation of T2T athletes
2:1	Specific Preparation Phase or Pre-Competition Phase	Provides earlier recovery. Ideal when focus is on quality, such as improving technical skills and improving anaerobic capacity
1:1	Competition Phase	Provides full recovery after tough week of intensity and racing

- **Peaking Mesocycles.** Peaking is the process, strategy or manipulation of training volume, intensity and rest to facilitate an athlete's best performance for specific competitions.

Figure 10.9: Accumulation of Training and Athletic Conditioning in an Annual Training Program.

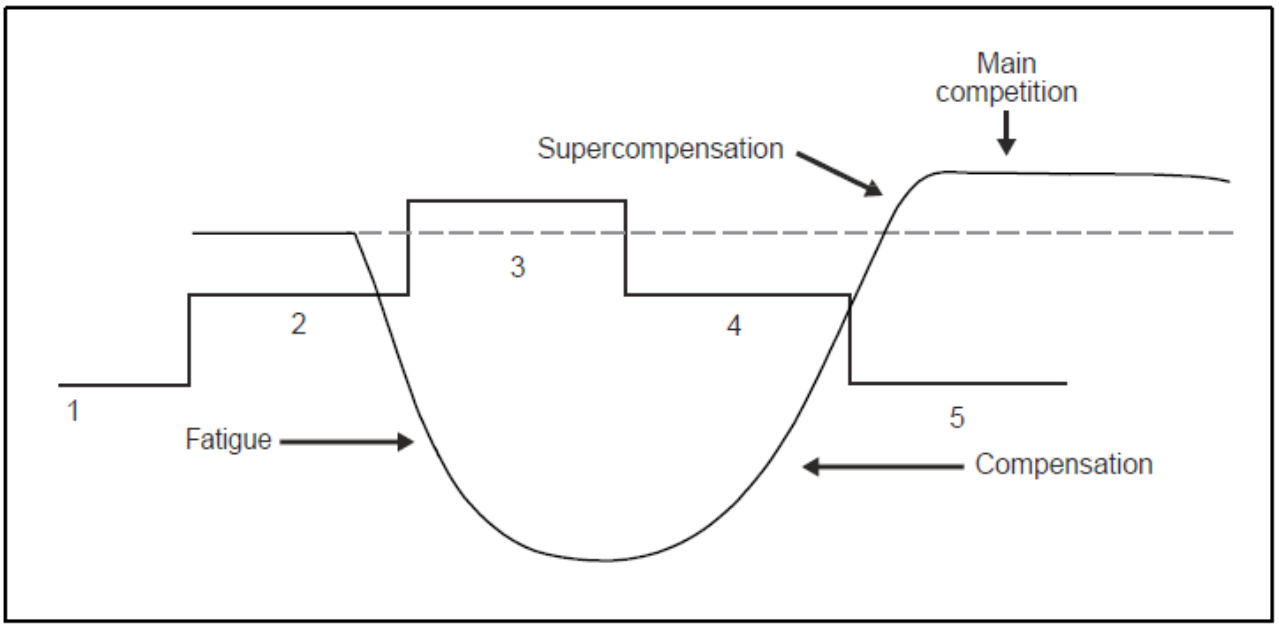


Management of a peaking program is difficult, since numerous variables affect the ability of an athlete to peak. One might say that all the stars need to be aligned for ideal peaking conditions to exist. For this reason, mesocycles leading up to a peak will vary depending on the athlete.

For peaking or an ideal performance to take place, a number of factors need to be facilitated or manipulated:

- High working potential and quick recovery rate – the athlete needs to be able to cope with high volume and then conversely recover quickly from the training stimuli.
- Near perfect neuromuscular coordination – automization of technical skills in order to optimize technical and tactical performance.
- Supercompensation – as discussed.
- Correct unloading phase – proper manipulation of volume and recovery leading up to the targeted competition (see Figure 10.7).
- Recovery and adequate body regeneration – proper recovery after training and competition is required to attain ideal performance, otherwise compounding fatigue will cause physical and neuropsychological exhaustion.
- Motivation, arousal and psychological relaxation - refer to section 5 of the NCCP T2T (On- Snow) Reference Material (Basic Mental Skills).
- Nervous cell working capacity – an athlete's performance of skills is the outcome of combined muscular activities, which are dependent on the readiness of the central nervous system (CNS). The nervous cell working capacity is greatly improved as an outcome of recovery and relaxation is promoted in the taper of the peaking strategy.

Figure 10.10: Microcycles Showing Correct Loading and Unloading Before the Main Competition Facilitates Supercompensation (Adapted from Bompa, 1999).



In general, peaking requires the athlete to taper for 14 days, or two microcycles. However, the fitness and experience of the athlete, the volume load placed on the athlete and all the conditions above affect exactly how many days of taper are required. Typically an elite athlete requires a longer taper and a beginning or T2T athlete needs a shorter taper.

Figure 10.11: Sample of Training Hours per Year by Age

	Average Hours Per Year													
	300	**350**	**400**	**450**	**500**	**550**	**600**	**650**	**700**	**750**	**800**	**850**	**850**	**850**
May	20	20	25	30	35	40	50	55	60	60	65	65	65	65
June	20	25	30	35	40	45	50	60	65	70	75	80	80	80
July	25	30	35	40	45	50	55	60	65	70	75	80	80	80
August	25	30	35	40	45	50	55	65	70	75	80	85	85	85
September	30	35	40	45	50	55	60	70	70	70	75	85	85	85
October	30	35	40	45	50	55	60	70	70	70	75	80	80	80
November	35	40	42	45	50	55	60	60	65	70	75	80	80	80
December	35	40	45	50	50	50	50	50	60	65	70	75	75	75
January	25	30	35	40	45	50	50	50	55	65	70	70	70	70
February	25	30	33	35	40	45	50	50	55	60	60	65	65	65
March	20	20	25	30	35	35	40	40	40	45	50	55	55	55
April	10	15	15	15	15	20	20	20	25	30	30	30	30	30
AGE	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26+**

Average Hours per Month

For more specific samples of training hours per mesocycle by age, see the Yearly Training Plan Guidelines for T2T athletes (appendix 1).

10.3.5 Step #5 - Monitoring, Re-Evaluating and Adjusting Training Plans

Throughout the training/competition year, the athlete and coach will need to monitor and assess the effectiveness of the training program. If the athlete is off target of the final desired destination, traveling too fast or too slow, then the coach and athlete may need to re-evaluate their goals and/or re-adjust the training program to meet them.

Monitoring of a training program is as simple as completing a regular training diary. The amount of detail listed will improve the quality of feedback to the coach. Adjustments may need to be made based on motivation levels, external stress loads, regular illness and fatigue, etc. Likewise, improvements in training or competitive performance above and beyond expectations may be assessed through regular field and lab testing that could indicate that the athlete has the ability to handle an increase in volume or intensity.

Some effective tools for monitoring for overtraining were designed by Bompa, 1999 and include the Motivation/Rest Monitoring Tool (see Appendix 3), as well as the Heart Rate/Weight Charting Tool (see Appendix 4).

Whether the athlete's training or competitive performance is improving or not, the athlete and coach should meet regularly and communicate often in order to make adjustments to the annual plan as needed. There is not much use in using the wrong road map if you are trying to get to a specific destination.

An annual training program is dependent on both the coach and the athlete for successful implementation. Regardless of the time, effort and research compiled in order to design a training program for a T2T athlete, the effectiveness of the program relies on the ability of the athlete to follow through on the training and recovery aspects, as well as the coach's ability to encourage and motivate the athlete to follow through.

APPENDIX 1: Sample YTP for T2T athletes (later part of stage)

Months	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March
Periods (macrocycles)	Transit.	General preparation			Specific preparation				Pre comp		Main competition	
Weeks (microcycles)	1 2 3 4	5 6 7 8	9 10 11 12 13	14 15 16 17	18 19 20 21 22 23 24 25 26	27 28 29 30 31 32 33 34 35	36 37 38 39	40 41	42 43 44 45 46 47 48 49	50 51 52		
Competitions and tests		X		X	X	X	X	X	X X	X	X X X	X
Camps			X	X			X		X X			
Med/physio assessments		X				X				X		
Specific vs non-spec. %	10/90	20/80		30/70	50/50		60/40		70/30		80/20	
ZONE 1-2 (Aero. Endurance)	Physical and mental regeneration; low volume and intensity											
ZONE 3 (Anaer. Threshold)												
ZONE 4 (MAS/RACE)												
Anaerobic Lactate Sprint												
Alactic Sprinting												
Core Strength												
Endurance strength												
Hypertrophy strength												
Power/plyometrics strength												
Max strength												
Flexibility												
Technique focus												
Race tactics/strategies focus												
Mental training focus												
#of intensity per week (Z3-4)	0-1	1 (up to 2 on some weeks)			2 (most weeks		2-3		2 (most weeks)		2-3 (includes races)	
# of Sprint/Speed per week	0	1-2			2		2		2-3		1-2	
Monthly Hours	20	30	41	40	52	47	42	45	40	35	30	37

high priority = high development

medium priority = moderate development or high maintenance

low priority = minimal maintenance

not a priority at all = should be avoided

* Max Strength should only be initiated by athlete who have completed their growth spurt.

YTP for T2T athletes (blank)

Months	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March
Periods (macrocycles)												
Weeks (microcycles)												
Competitions and tests												
Camps												
Med/physio assessments												
Specific vs non-spec. %												
ZONE 1-2 (Aero. Endurance)												
ZONE 3 (Anaer. Threshold)												
ZONE 4 (MAS/RACE)												
Anaerobic Lactate Sprint												
Alactic Sprinting												
Core Strength												
Endurance strength												
Hypertrophy strength												
Power/plyometrics strength												
Max strength												
Flexibility												
Technique focus												
Race tactics/strategies focus												
Mental training focus												
#of intensity per week (Z3-4)												
# of Sprint/Speed per week												
Monthly Hours												

	high priority = high development
	medium priority = moderate development or high maintenance
	low priority = minimal maintenance
	not a priority at all = should be avoided
*	Max Strength should only be initiated by athlete who have completed their growth spurt.

APPENDIX 2: Motivation /Rest Monitoring Tool – Sample

Name _____ Month _____

Length of Sleep	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
12+ hours																															
11																															
10																															
9																															
8																															
7																															
6																															
5																															
4																															
No sleep at all																															
Quality of Sleep																															
Very deep																															
Normal																															
Restless																															
Bad with breaks																															
Not at all																															
Tiredness																															
Very rested																															
Normal																															
Tired																															
Very tired																															
Painful tiredness																															
Training																															
Very deep																															
Good																															
Poor																															
Unwilling																															
Appetite																															
Very good																															
Good																															
Poor																															
Eat because should																															
Did not eat																															
Competitive																															
High																															
Average																															
Low																															
Not at all																															
Muscle Soreness																															
No pain																															
Little pain																															
Moderate pain																															
Severe pain																															

Motivation /Rest Monitoring Tool – Blank

Name _____ Month _____

Length of Sleep	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**
12+ hours																															
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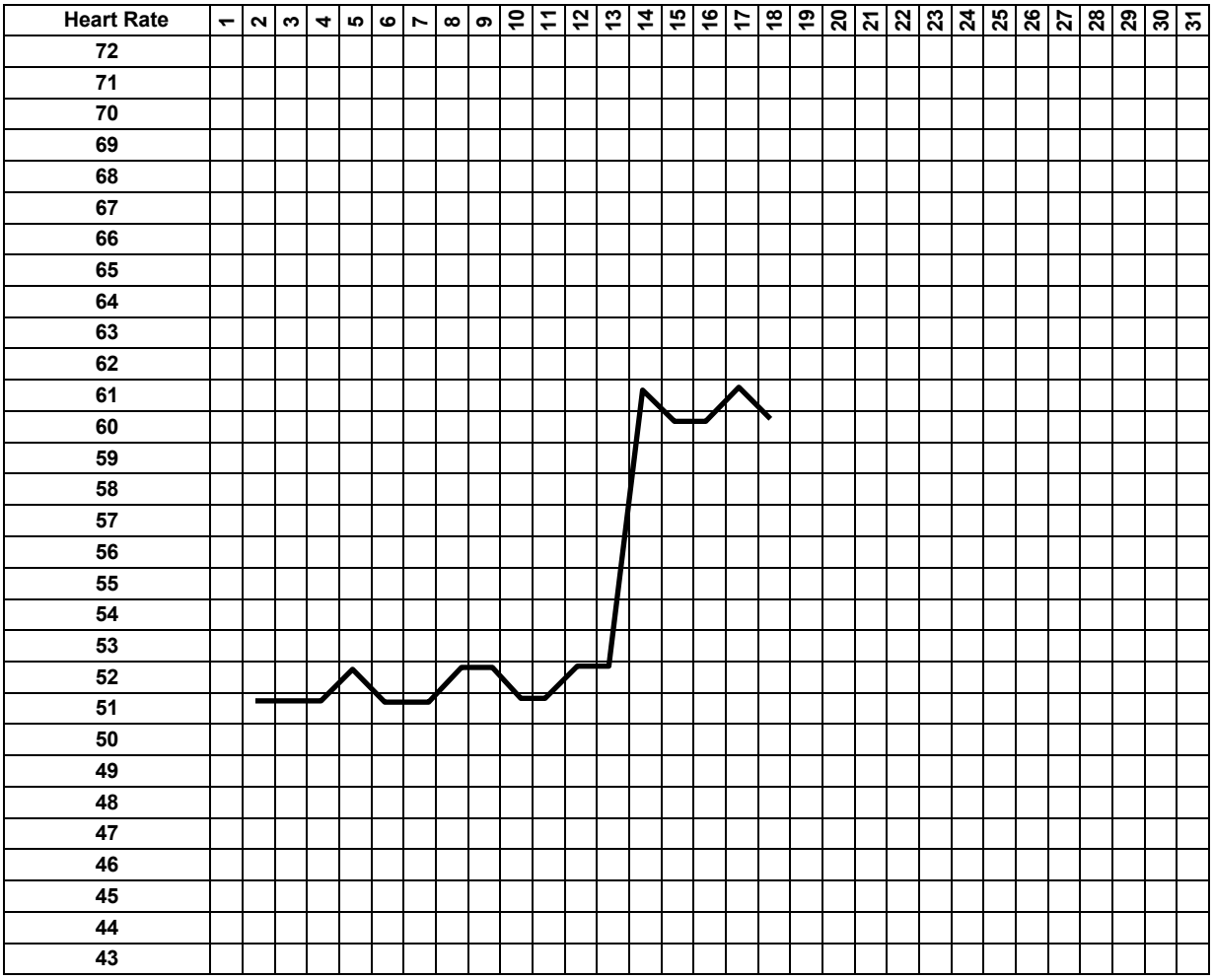
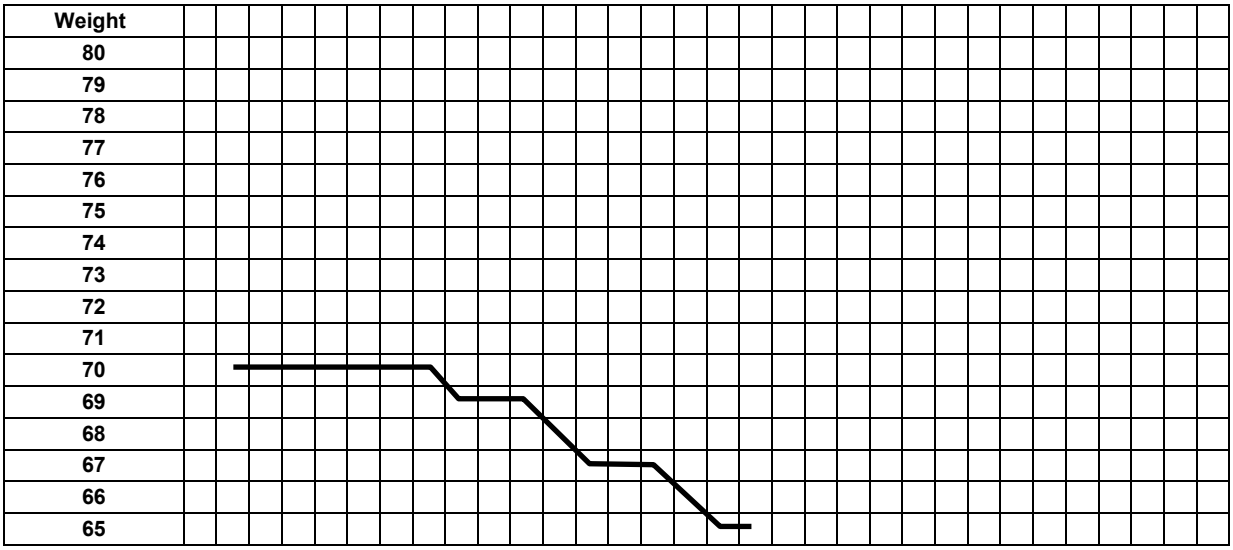
Average																															
Low																															
Not at all																															
Muscle Soreness																															
No pain																															
Little pain																															
Moderate pain																															
Severe pain																															

APPENDIX 3: Heart Rate/Weight Charting Tool – Sample

Name _____ Month _____





Heart Rate/Weight Charting Tool – Blank

Name _____ Month _____

Heart Rate																														
72																														
71																														
70																														
69																														
68																														
67																														
66																														
65																														
64																														
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Weight																														
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77																														
76																														
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65																														

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