

Nordic Skiing Training Program

For comprehensive year-round training and coaching visit www.naturalfitnesslab.com

DISCLAIMER

All sports including Nordic Skiing have inherent risks. This training advice is provided without the benefit of assessing the reader's health, fitness or skill. It is not a substitute for qualified personal coaching. Obtain a doctor's medical assessment before engaging in strenuous exercise. Readers follow the program at their own risk.

Training Guide

We have created this quick reference training guide to help you prepare for the upcoming nordic ski season. Physical fitness is a year-round commitment. A comprehensive training course and annual program is available on DVD from www.xczone.tv or in person from [natural fitness lab](#). We assume a basic level of physical fitness.

Assumptions

This short program is meant to quickly tune your fitness specifically for nordic skiing, it assumes a base level of fitness and regular physical activity. Choose the category which best suits your starting point:



- Beginner-Novice 10K - exercise 3x per week, ski twice a week in winter



- Intermediate 29K-50K - exercise 5 days a week, ski 4 times per week in the winter

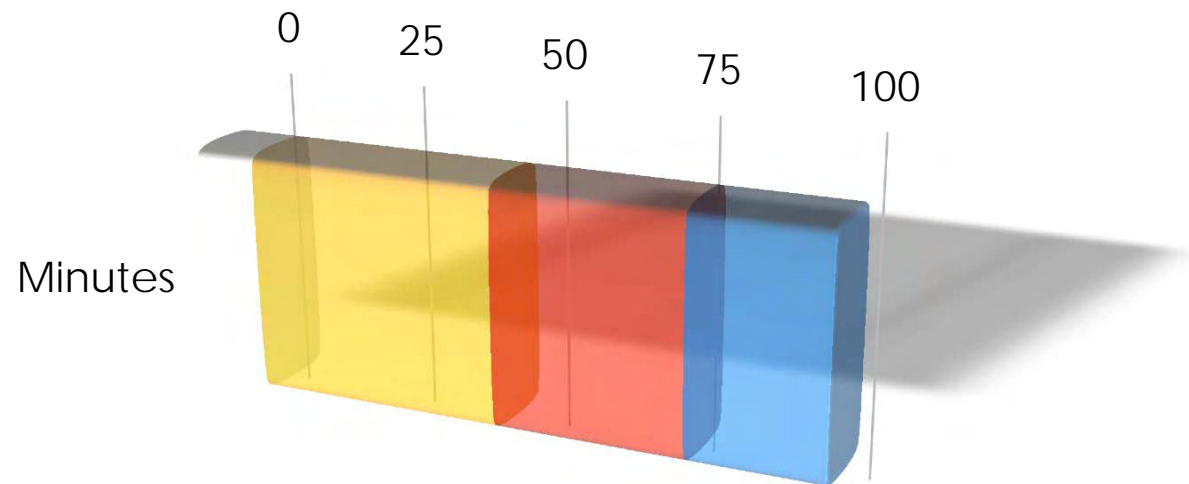
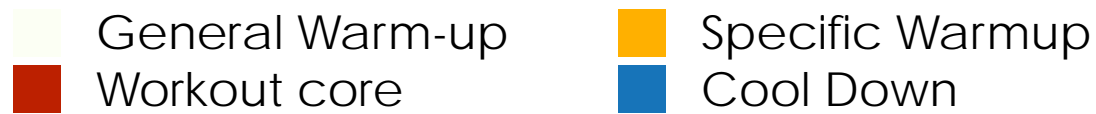


- Advanced-Elite 50K - Training 400hrs+ per year or 6 days a week, ski 5 times per week in the winter

Training Principles

There are a number of training principles and one can deconstruct them to varying depths. To make matters simple, we have isolated the most important training fundamentals and listed them in order of importance:

- **Consistency** - is the most important factor in training which determines physical fitness, skill and ultimately performance. In real terms, this means leading an active lifestyle and doing the cardio-muscular workouts, ideally every day.
- **Specificity** - means practicing the activity itself or modes of exercise which most closely match the sport. If you want to be a good skier then you have to ski lots! You won't become as good of a skier by biking, swimming or lifting weights. Cross-training is great but skiing is more important if your goal is a ski race.
- **Periodicity** - in your workouts provide the variance in volume, intensity and recovery which will improve fitness the fastest. Most people incorrectly train medium-well all the time. What you want to do is mix it up by one day going further or faster (intervals). Alternate between hard and easy days, whilst ensuring plenty of active recovery.
- **Progressive loading** - gradually increases the difficulty of workouts over time. Thus, challenging the body to improve and adapt to the load in hours or intensity. We taper the load as we approach race day.



The anatomy of the workout consists of a substantially long warmup (30min+) at a very slow pace, the core session (like intervals) and a good cool-down.

TRAINING ZONES



ZONE 5 - As fast and as hard as you can go for 10 seconds at a time. An all out sprint.



ZONE 4 - Going faster than race pace. Not sustainable past 3 minutes.



ZONE 3 - Race pace. You have to start pushing yourself.



ZONE 2 - Medium well. Most people fall into this pace when they let themselves go.

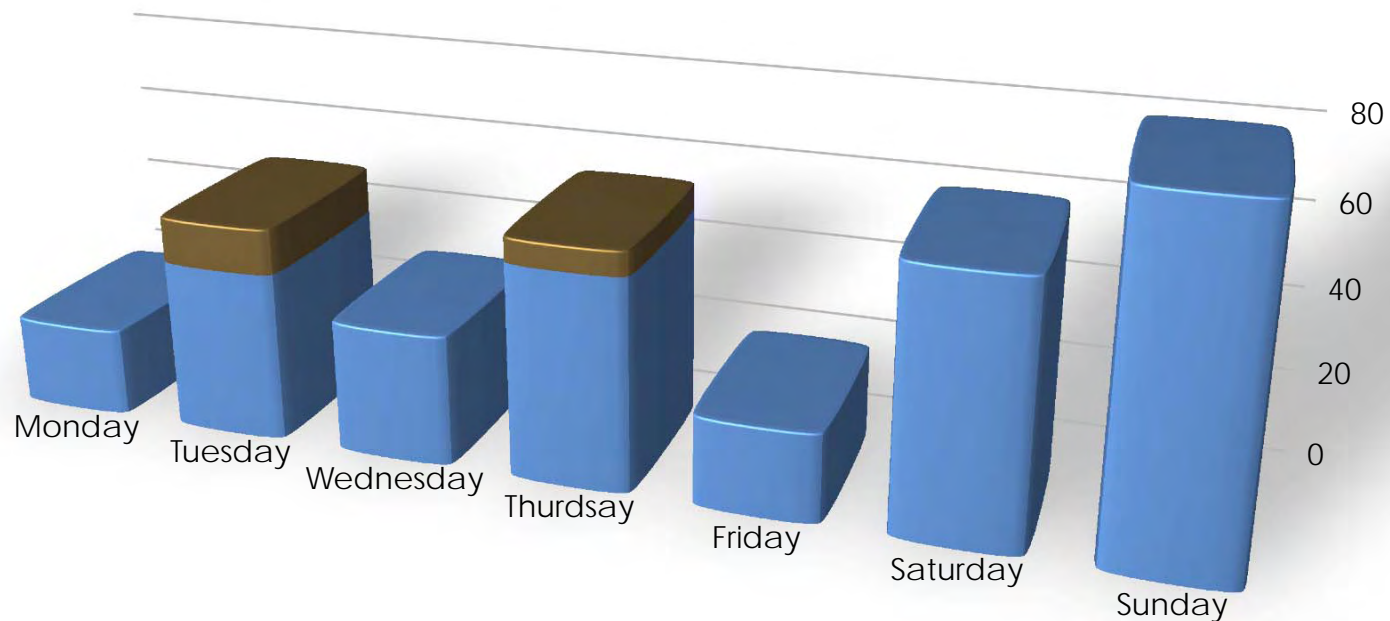


ZONE 1 - Slow. Hold yourself back.

Note: There is a more clinical, quantitative and precise measurements for heart rate training zones but these require both field and lab testing. For the purposes of a basic training, the preceptive scales of exertion (above) will normally suffice.

Recovery

■ Zone 1 ■ Zone 2 ■ Zone 3 ■ Zone 4 ■ Zone 5

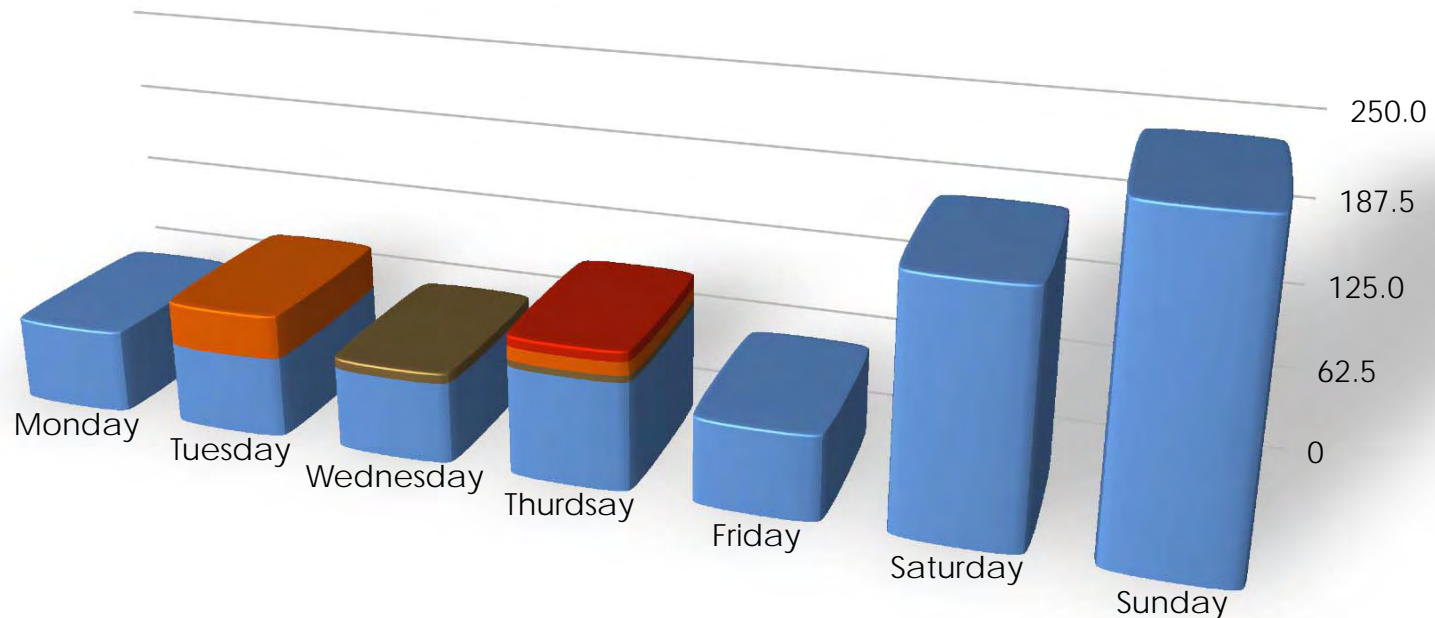


Yearly Training Phase - The beginning of the training year starts with a **recovery phase** lasting several weeks. It is a time to rebuild and cross-train at very low intensities and hours.

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Base

■ Zone 1 ■ Zone 2 ■ Zone 3 ■ Zone 4 ■ Zone 5

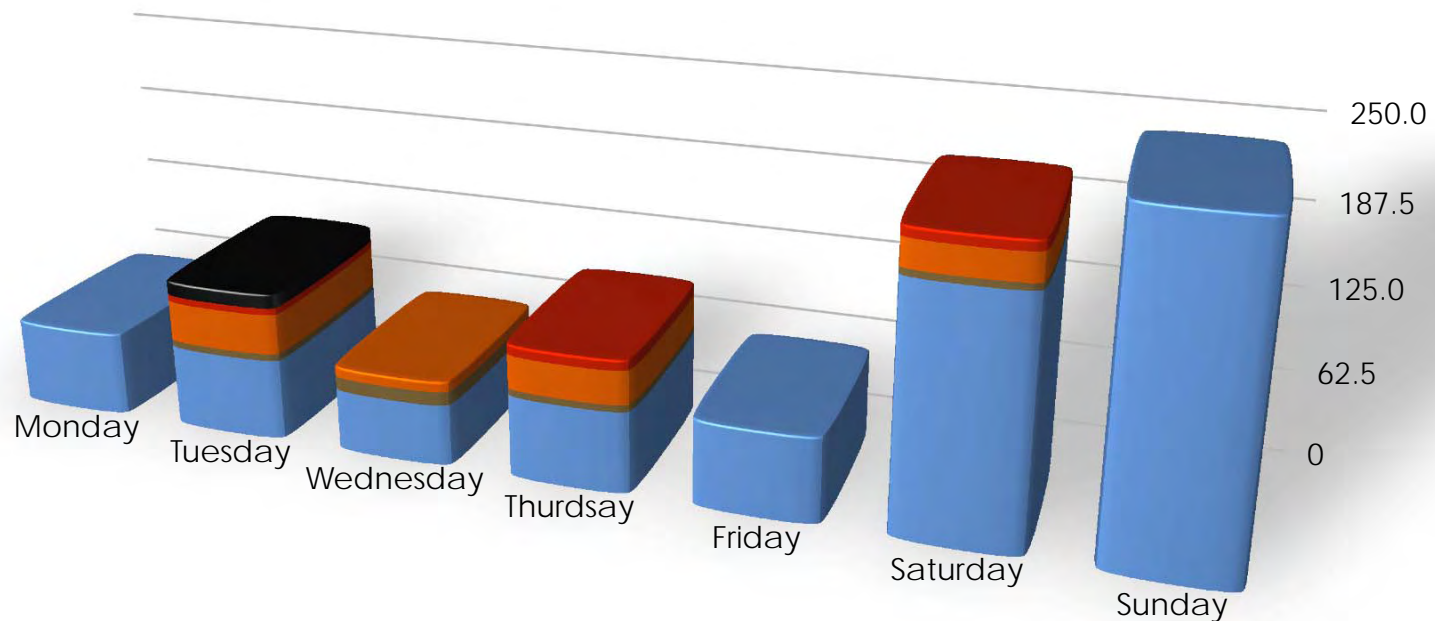


Yearly Training Phase - The skier spends the spring and summer building a cardiovascular and muscular base involving mostly long slow distance (running and roller skiing) and weight workouts. Intensity sessions (natural intervals) are gradually introduced as the summer progresses. First once a week then twice a week. Ninety per cent of the training hours are easy whereas 5-10% is done at or above race pace.

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Intensity

■ Zone 1 ■ Zone 2 ■ Zone 3 ■ Zone 4 ■ Zone 5

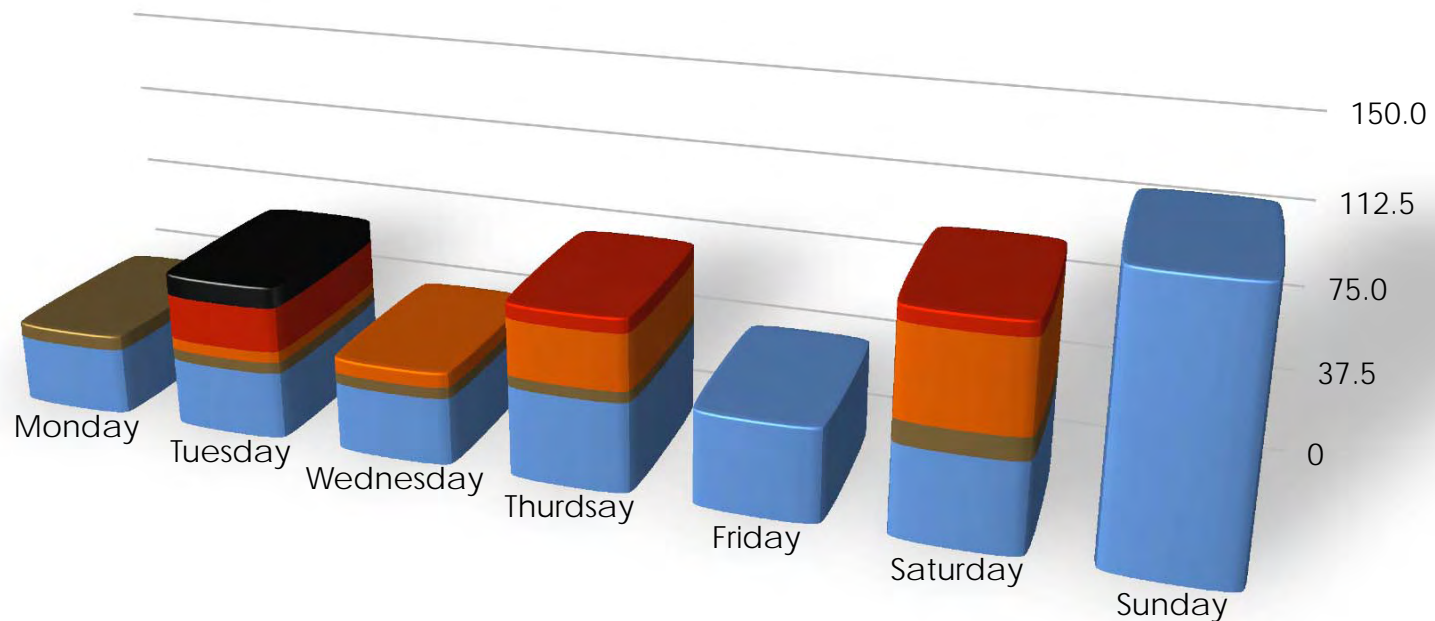


Yearly Training Phase - The intensity phase starts in September and lasts until January. A greater emphasis is placed on high intensity workouts up to three times per week, consuming about 15% of total training hours. Either the skier is going very hard or very easy, nothing in the middle.

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Peak

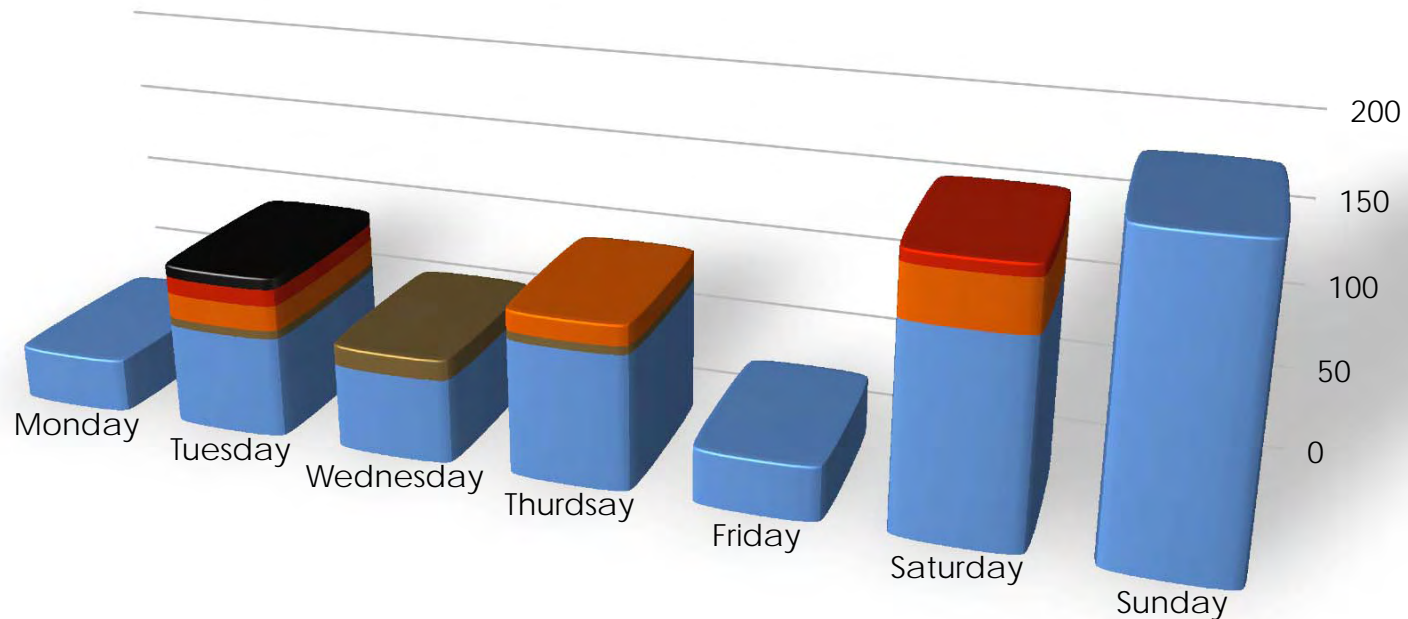
■ Zone 1 ■ Zone 2 ■ Zone 3 ■ Zone 4 ■ Zone 5



Yearly Training Phase - The peak phase starts much like the intensity phase except that we reduce the total training hours and focus on shorter-faster intervals in preparation for racing. Normally this is two weeks in January.

Race

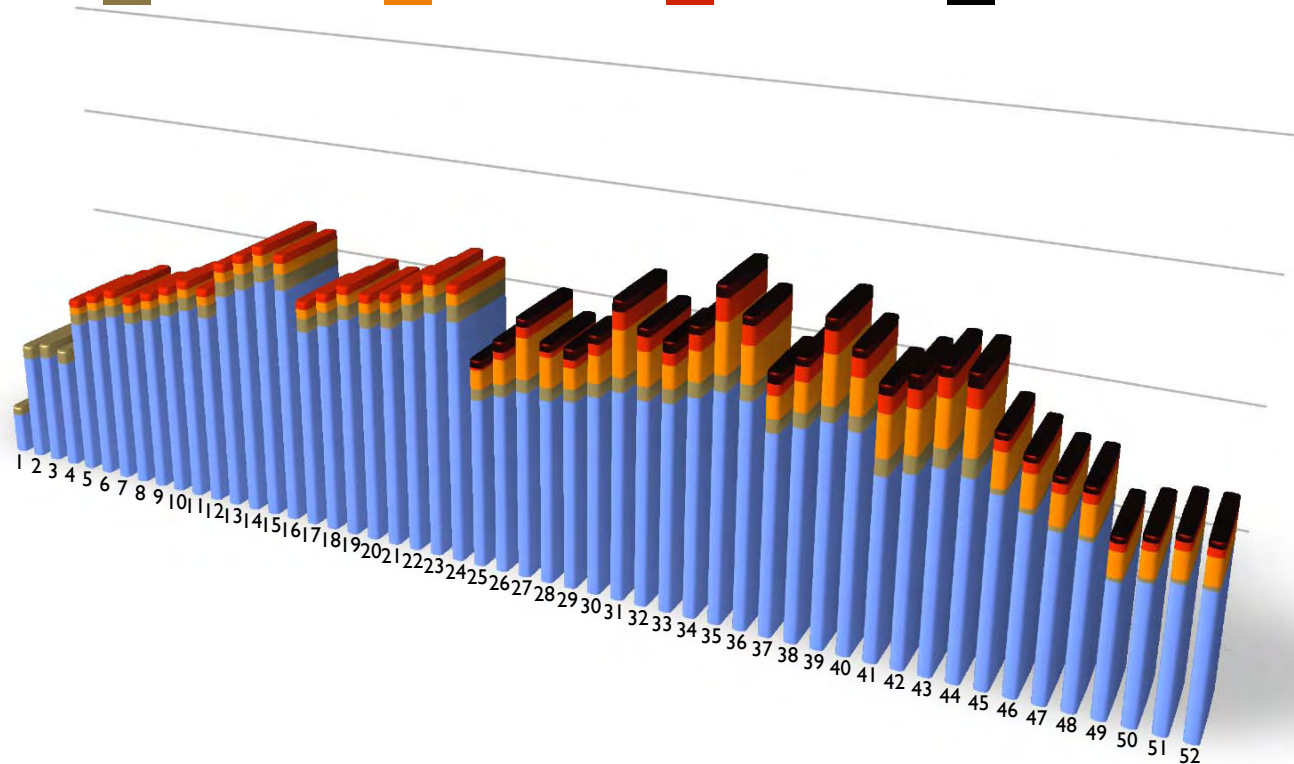
■ Zone 1 ■ Zone 2 ■ Zone 3 ■ Zone 4 ■ Zone 5



Yearly Training Phase - The race season lasts from Jan to Apr. The emphasis is on racing on the weekend. Total number of training hours is reduced. We still do some shorter intervals midweek to stay sharp. The rest of the time is spent in active recovery or low intensity distance.

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■ Zone 1 ■ Zone 2 ■ Zone 3 ■ Zone 4 ■ Zone 5

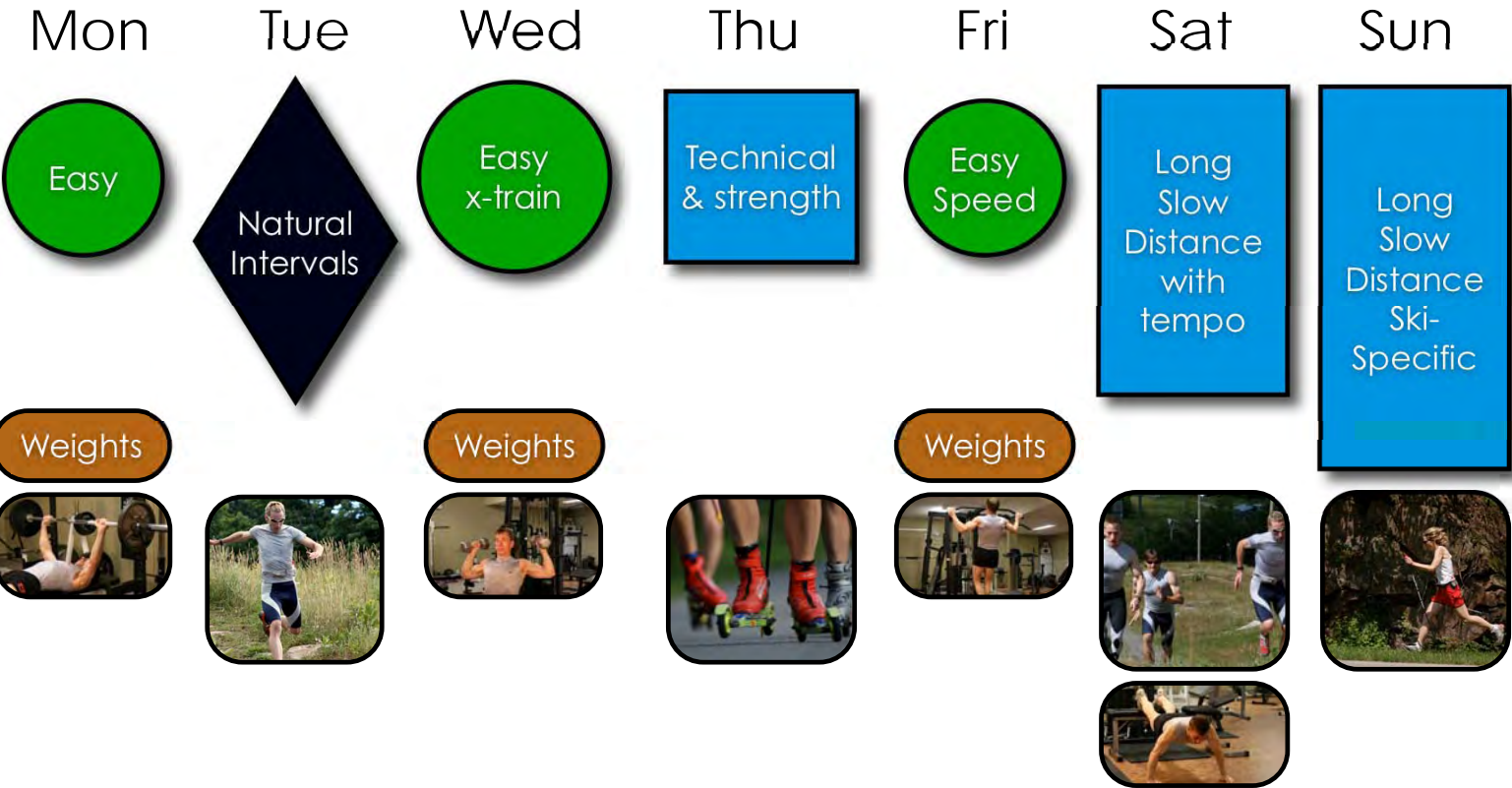


Annual Training program - When we put together: consistency, specificity, periodicity, progressive loading training phases for 52 weeks, the year looks something like this. The height of the bars represent weekly training hours and the colours indicate relative intensity. This is a tried and true scientific means of optimizing performance gains for all sports.

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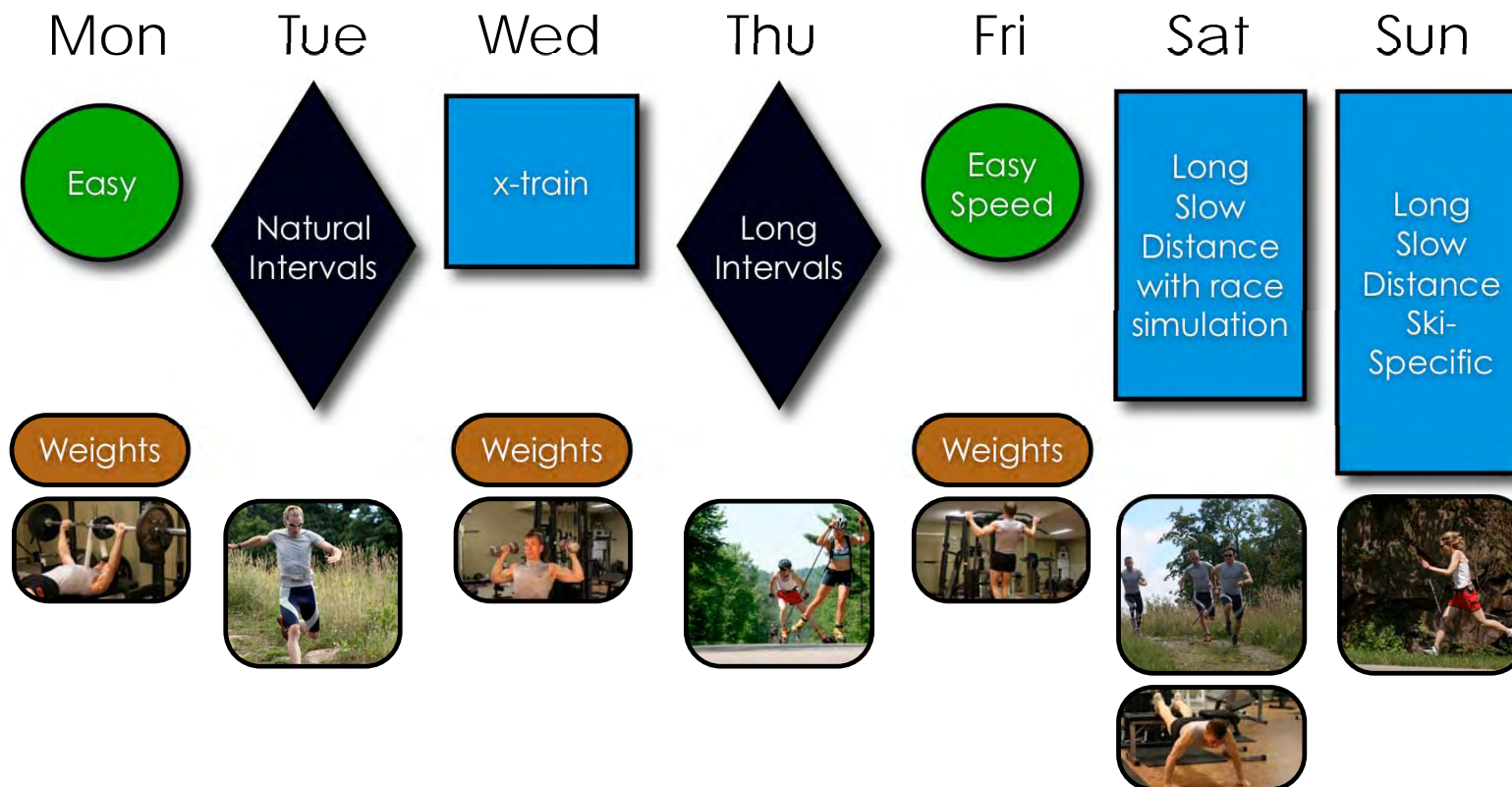
WEEKLY SCHEDULE SPRING-SUMMER

* Suitable for strong intermediate to elite skier



WEEKLY SCHEDULE FALL

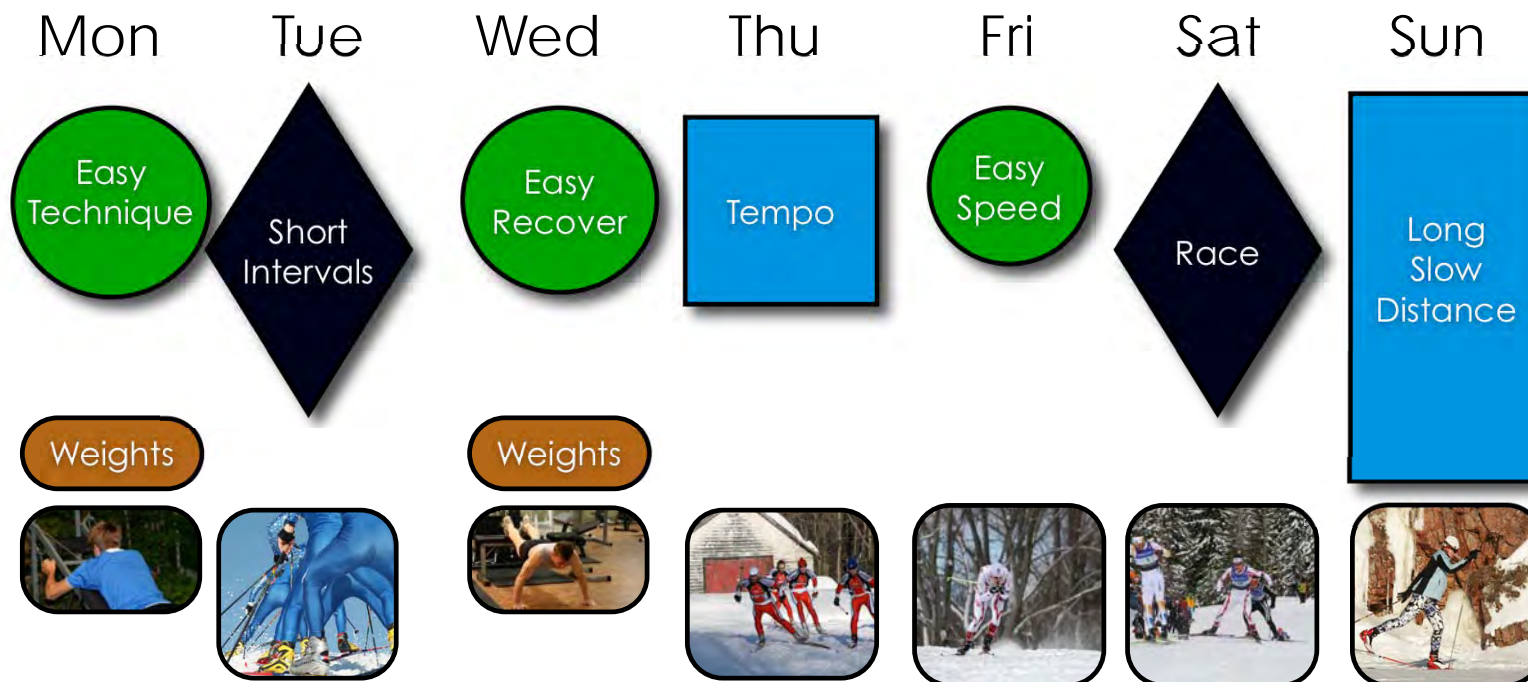
* Suitable for strong intermediate to elite skier



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WEEKLY SCHEDULE WINTER

* Suitable for strong intermediate to elite skier





Novice

Eight Week Training Program - Gatineau Loppet 10-16K

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	Easy ski technique double poling Total 20min		Hill Intervals 2x4min at faster than race pace Total 1hr	Active Recovery Very Easy Total 1hr		Long Slow Distance Total 1hr	Long Slow Distance Total 1.5hr
2	Easy ski technique legs only Total 20min	Active Recovery Very Easy Total 1hr	Hill Intervals 3x3min at faster than race pace Total 1hr	Active Recovery Very Easy Total 1hr	Active Recovery Very Easy Total 20min	Tempo ski 20 minutes at 80% race pace Total 1.5hr	Long Slow Distance Total 2hr
3	Easy ski technique one-skate or diagonal stride Total 30min	Easy ski Total 1hr	Hill Intervals 2x5min at faster than race pace Total 1hr	Active Recovery Very Easy Total 1hr	Active Recovery Very Easy Total 20min	Tempo ski 10 minutes at 95% race pace Total 1.5hr	Long Slow Distance Total 2.5hr
4	Easy ski technique two skate or step-double pole Total 45min	Active Recovery Very Easy Total 1hr	Hill Intervals 2x6min at faster than race pace Total 1hr	Active Recovery Very Easy Total 1hr	Active Recovery Very Easy Total 20min	Tempo ski 30 minutes at 85% race pace Total 1.5hr	Long Slow Distance Total 3hr
5	Easy ski technique offset or running diagonal stride Total 45min	Easy ski Total 1hr	Hill Intervals 3x4min at faster than race pace Total 1hr	Active Recovery Very Easy Total 1hr	Active Recovery Very Easy Total 20min	Tempo ski 15 minutes at 95% race pace Total 1.5hr	Long Slow Distance Total 2.5hr
6	Easy ski technique downhill turns and tucks Total 30min	Active Recovery Very Easy Total 1hr	Hill Intervals 5x2min at faster than race pace Total 1hr	Active Recovery Very Easy Total 1hr	Active Recovery Very Easy Total 20min	Tempo ski 40 minutes at 90% race pace Total 1.5hr	Long Slow Distance Total 3hr
7	Easy ski technique offset or diagonal stride Total 1hr	Easy ski Total 1hr	Hill Intervals 8x1min at faster than race pace Total 1hr	Active Recovery Very Easy Total 1hr	Active Recovery Very Easy Total 20min	Tempo ski 10 minutes at race pace Total 1.5hr	Long Slow Distance Total 1hr
8	Easy ski technique review all Total 30min	Active Recovery Very Easy Total 1hr	Hill Intervals 10x30sec at faster than race pace Total 1hr	Active Recovery Very Easy Total 1hr	Active Recovery Very Easy Total 20min	RACE	RACE

For a more detailed year-round training program and coaching see www.naturalfitnesslab.com



Intermediate

Eight Week Training Program - Gatineau Loppet 29-50K

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	Easy ski technique double poling Total 45min	Intervals 2x3 min max with 3 min recovery Total 1hr	Fartlek (easy pace) Total 1hr	Hills 2x10min at race pace with full recovery Total 1hr	Active Recovery easy ski Total 30min	Race simulation 20min at 80% race pace Total 2hr	Long Slow Distance Total 2hr
2	Easy ski technique legs only Total 45min	Intervals 6x1 min max with 2 min recovery Total 1hr	Fartlek (easy-moderate pace) Total 1hr	Double poling 3x5min at race pace with full recovery Total 1.5hr	Active Recovery easy ski Total 30min	Race simulation 30min at 85% race pace Total 3hr	Long Slow Distance Total 2.5hr
3	Easy ski technique one-skate or diagonal stride Total 45min	Intervals 4x2 min max with 2 min recovery Total 1.5hr	Fartlek (easy-race pace) Total 1hr	Hills 2x15min at race pace with full recovery Total 1hr	Active Recovery easy ski Total 30min	Race simulation 40min at 90% race pace Total 3hr	Long Slow Distance Total 3hr
4	Easy ski technique two skate or step-double pole Total 45min	Intervals 3x3 min max with 3 min recovery Total 1.5hr	Fartlek (easy-moderate pace) Total 1hr	Legs only 4x5min at race pace with full recovery Total 1.5hr	Active Recovery easy ski Total 30min	Race simulation 1hr at 95% race pace Total 2hr	Long Slow Distance Total 3.5hr
5	Easy ski technique offset or running diagonal stride Total 1hr	Intervals 20x30sec max with 30sec recovery Total 1.5hr	Fartlek (easy-race pace) Total 1hr	Hills 5x4min at race pace with full recovery Total 1.5hr	Active Recovery easy ski Total 30min	Race simulation 2 hr at 80% race pace Total 3hr	Long Slow Distance Total 4hr
6	Easy ski technique downhill turns and tucks Total 1hr	Intervals 4x3 min max with 4 min recovery Total 1.5hr	Fartlek (easy-race pace) Total 1hr	Natural Intervals 3x10min at race pace with full recovery Total 1.5hr	Active Recovery easy ski Total 30min	Race simulation 40minutes at 100% race pace Total 3hr	Long Slow Distance Total 3hr
7	Easy ski technique two skate or step double pole Total 1hr	Intervals 4x2 min max with 4 min recovery Total 1.5hr	Fartlek (easy-moderate pace) Total 1hr	Hills 4x10min at race pace with full recovery Total 1.5hr	Active Recovery easy ski Total 30min	Race simulation 15min at race pace Total 2hr	Long Slow Distance Total 2hr
8	Easy ski technique review all Total 45min	Intervals 20x10sec max with full recovery Total 1hr	Fartlek (easy pace) Total 1hr	Natural Intervals 2x5min at race pace with full recovery Total 1hr	Active Recovery easy ski Total 30min	RACE	

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Advanced - Elite

Eight Week Training Program - Gatineau Loppet 50K

* All workouts include good warm-up and cool down in the total scheduled time.

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	Easy ski technique double poling Total 1hr	Intervals 3x3 min max with 3 min recovery Total 1hr	Fartlek (easy pace) Total 1hr	Hills 2x10min at race pace with full recovery Total 1hr	Speed 8x5sec with full recovery Total 1hr	Race simulation 20minutes at race pace Total 2hr	Long Slow Distance Total 2hr
2	Easy ski technique legs only Total 1hr	Intervals 10x1 min max with 2 min recovery Total 1hr	Fartlek (easy-moderate pace) Total 1hr	Legs only 3x5min at race pace with full recovery Total 1.5hr	Speed 10x5sec with full recovery Total 1hr	Race simulation 30minutes at race pace Total 3hr	Long Slow Distance Total 3hr
3	Easy ski technique one-skate or diagonal stride Total 1hr	Intervals 6x2 min max with 2 min recovery Total 1.5hr	Fartlek (easy-race pace) Total 1hr	Natural Intervals 2x15min at race pace with full recovery Total 1hr	Speed 10x10sec with full recovery Total 1hr	Race simulation 40minutes at race pace Total 3hr	Long Slow Distance Total 3hr
4	Easy ski technique two skate or step-double pole Total 1hr	Intervals 4x3 min max with 3 min recovery Total 1.5hr	Fartlek (easy-moderate pace) Total 1hr	Arms only 4x5min at race pace with full recovery Total 1.5hr	Speed 15x10sec with full recovery Total 1hr	Race simulation 60minutes at race pace Total 2hr	Long Slow Distance Total 4hr
5	Easy ski technique offset or running diagonal stride Total 1hr	Intervals 30x30sec max with 30sec recovery Total 1.5hr	Fartlek (easy-race pace) Total 1hr	Natural Intervals 5x4min at race pace with full recovery Total 1.5hr	Speed 20x5sec with full recovery Total 1hr	Race simulation 2 hr at race pace Total 3hr	Long Slow Distance Total 3hr
6	Easy ski technique downhill turns and tucks Total 1hr	Intervals 5x3 min max with 2 min recovery Total 1.5hr	Fartlek (easy-race pace) Total 1hr	Natural Intervals 3x10min at race pace with full recovery Total 1.5hr	Speed 10x10sec with full recovery Total 30min	Race simulation 40minutes at race pace Total 3hr	Long Slow Distance Total 4hr
7	Easy ski technique two skate or step double pole Total 1hr	Intervals 8x2 min max with 1 min recovery Total 1.5hr	Fartlek (easy-moderate pace) Total 1hr	Natural Intervals 5x6min at race pace with full recovery Total 1.5hr	Speed 15x5sec with full recovery Total 40min	Race simulation 15minutes at race pace Total 2hr	Long Slow Distance Total 2hr
8	Easy ski technique review all Total 1hr	Intervals 20x30sec max with 1min recovery Total 1.5hr	Fartlek (easy pace) Total 1hr	Natural Intervals 2x5min at race pace with full recovery Total 1hr	Speed 10x5sec with full recovery Total 30min	RACE	RACE

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www.naturalitneslab.com offers year-round expert-led group coaching, technique clinics and training sessions for trail running and nordic skiing. All levels and abilities are welcome.

www.xczone.tv has produced some of the most comprehensive technical, training and motivational DVDs on the sport of nordic skiing.