

2009-2010

Adult Program 18+

# NATURAL FITNESS LAB.COM



## Trail Running & Nordic Skiing

*applied strength, cardiovascular conditioning and power-endurance...*



Nordic Skiing

## TUNE MORE THAN JUST YOUR SKIS...

**Natural Fitness, in its purist form, is rooted in “clean oxygen fed sport.” It employs a wide-spectrum of skills and range-of-motion, while integrating core strength through physical literacy**

Natural Fitness Lab offers a unique program that combines trail running and nordic skiing in a fashion that is designed to mentor multi-sport enthusiasts, runners, adventure racers and nordic skiers towards higher-performance, health, fitness and enjoyment. The emphasis is on fast-tracking the development of technique, cardiovascular stamina, power-endurance, core-strength and natural fitness by Clean Oxygen Fed Sport. The program is suitable for all levels of athletes, skiers and runners. Supervised sessions include the right mix of high-intensity, technique and long slow distance workouts. Adult 18+ and university or college students are welcome. We are club agnostic in our membership - just come out and play!

Natural fitness lab offers:

- Weekly group training sessions
- Personal and virtual coaching
- High definition instructional DVDs
- Sports specific fitness testing
- Annual training programs
- Technique and fitness training
- Clinics and Camps
- Certified coaching staff
- Sports Medicine
- Kinesiology expertise
- Biomechanical Analysis

Registration [www.naturalfitnesslab.com](http://www.naturalfitnesslab.com)

Schedule [www.trirudy.com](http://www.trirudy.com)



Group Trail Runs



# The perfect combination of sports



**Trail running** is the perfect way to apply core strength, cardiovascular endurance, aerobic power, agility, balance, and confidence in a pragmatic and natural environment. Free yourself from the roads and engage in a richer and more enduring experience. The program is perfect for running specialists, nordic skiers, adventure racers and multi-sport enthusiasts.

through **Nordic Skiing** – the ultimate clean oxygen fed sport. Achieve superior total-body conditioning with one sport. Build power-endurance, core strength, coordination and high dynamic range of physical literacy. The fall/winter training program consists of trail running, dry-land training and later on-snow conditioning. It's most advanced adult Nordic ski program is of its kind in the country; university and college students welcome. Looking for adventure, lifestyle, or performance fitness? Many participants have personal goals ranging from: improving skills, finishing a Ski Marathon, and to elite high-performance racing.

Fall



MON	TUES	WED	THURS	FRI	SAT	SUN
Easy nordic ski dryland session 1hr	Intervals or intensity trail running 1.5 hours	Race Team Track Workout 1.5 hours	Race Team Training Roller Ski 1.5hrs			Long Slow Distance trail run 2 hours



Winter

MON	TUES	WED	THURS	FRI	SAT	SUN
Learn2ski Easy technique session 1hr	Train2race Intervals or intensity 1.5 hours				Race Team Time Trial 2hr	Race Team LSD 3hrs then Ski Tour 1.5hrs



Experience natural fitness

## Outdoor sports, fitness and fun



We offer programs from simple to sophisticated, for novice to elite athletes using Trail Running and Nordic skiing. The program has been carefully designed to support the spectrum of ambitions; whether you are using skiing and running for cross-training or improved fitness. Perhaps you are a skiing aficionado interested in the Canadian Ski Marathon or a racer preparing for the Loppet circuit, World Masters, National championships or the Olympics. Maybe you just want to ski with friends, meet interesting fit adults with similar energy levels and enjoy a meal afterwards.

We provide expert-lead group training sessions and training programs that are carefully crafted for the skiing aficionado, cross-training athlete, or racer. Our coaches can also design specific programs for each individual, work with you during practice and carefully track your progress through logs and sophisticated virtual coaching software on-line.

### Intrinsic elements:

- Social networking
- Sports psychology
- Equipment ski selection tuning and waxing



# Trail Running in the Spring, Summer and Fall



Trail running is the perfect way to apply core strength, cardiovascular endurance, aerobic power, agility, balance, and confidence in a pragmatic and natural environment. Free yourself from the roads and engage in a richer and more enduring experience. The program is perfect for running specialists, nordic skiers, adventure racers and multi-sport enthusiasts. Locations posted on [www.trirudy.com](http://www.trirudy.com) under group training.

Summer						
MON	TUES	WED	THURS	FRI	SAT	SUN
	Fartlek Trail Run 1.5 hours	Race Team Track 1.5hrs	Race Team Roller ski 1.5hrs		Race Team Time Trial 2hrs	Long Slow Distance run 2 hours
	◆	■	■		◆	●
Fall						
MON	TUES	WED	THURS	FRI	SAT	SUN
Easy dry land ski technique session 1hr	Intervals or intensity Trail Running 1.5 hours		Race Team Roller ski 1.5hrs		Race Team Time Trail 2hrs	Race Team RollerSki 3hrs  PM Group Long Slow Distance run 2 hours
●	◆		◆		◆	■

## Nordic Skiing Training in the winter



**10** good reasons to take up Nordic Skiing this year: **1.** Get to the core of fitness with an integrated cardiovascular and muscular workout. Develop extraordinary power-endurance by exercising every muscle through a full-range of motion at the same time. Discover what we mean by Clean Oxygen Fed Sport. **2.** Engage in a sustainable healthy lifestyle that will gain fitness the natural way; without any gadgets or fads. Nordic skiing has stood the test of time. **3.** Deter injury by practicing seasonal variation and cross-training using a low-impact activity. **4.** Sculpt a muscular-slender build and positive body image, approaching an all-round definition of fitness. **5.** Interact with an embracing social network of like-mind enthusiasts and kindred spirits. Ottawa boasts a dozen ski clubs and several thousand regular XC skiers. **6.** Experience nature in what can only be described as a spiritual outing. Ski under the night stars and stay for a potluck dinner by candlelight with friends. **7.** Develop some new technical skills and agility that you never thought you had. There are a number of great ski camps and instructional programs in the area. **8.** Discover the winter wonderland right in your backyard with the delight of a child's eye, seeing the terrain as a playground of soft inviting snow and a labyrinth trails. **9.** Make your workout an adventure where the journey is not just counting the minutes or miles. Cultivate genuine excitement and expectation around every corner. **10.** Here is your chance to wear bright spandex that you wouldn't otherwise be caught dead in.

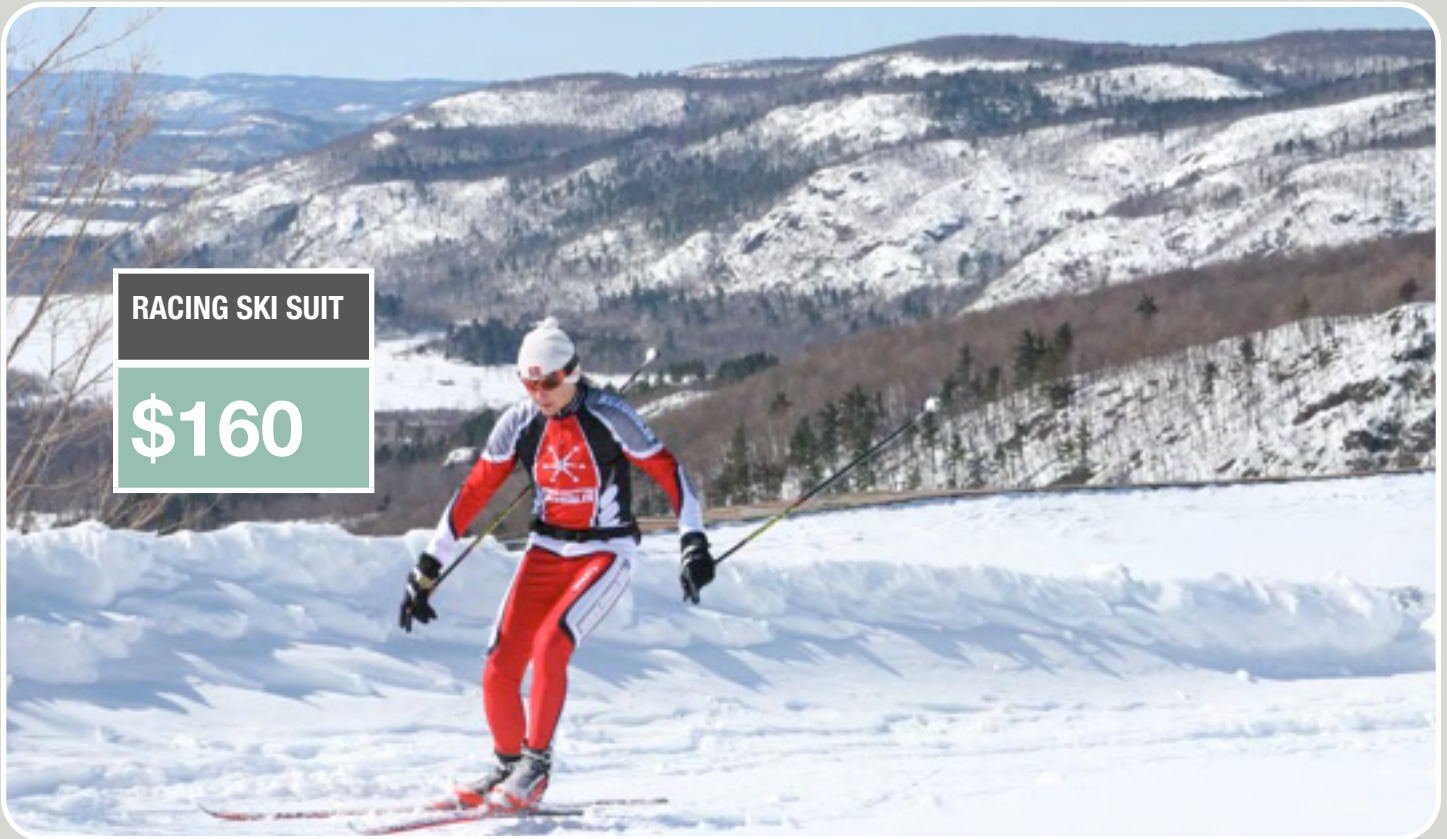


Winter

MON	TUES	WED	THURS	FRI	SAT	SUN
Learn2ski Easy technique session 1hr	Train2race Intervals or intensity 1.5 hours				Race Team Time Trial 2hrs	AM Race Team LSD 3hr  PM Group Ski Tour 1.5hrs



## The suit



RACING SKI SUIT

\$160



## Biomechanical Analysis - Motion capture



All our instruction is backed-up with a comprehensive published body-of-knowledge available to you on DVD.

XCZONE.TV is a trusted source for instructional and motivational XC skiing multimedia, the most evolved and innovative products in the market space, the highest level of certification in the industry, and new kind of action which defines the natural fitness popular culture with talent bordering on the paranormal. The producers behind these DVDs are real skiers and runners.

**"Cross-Country Canada enthusiastically endorses XCZONE.TV as a key resource for beginning and experienced skiers or coaches looking for clear, correct and easily-understood guidance for improving their skiing technique. As the National Ski Team coaches collaborated on the technical narrative, we can confirm that the theory and practice ... are carefully aligned with current and evolving doctrine." - CEO Cross-Country Canada**

The cinematography of [www.xczone.tv](http://www.xczone.tv) is all about promoting Clean Oxygen Fed Sports and Natural Fitness through best selling instructional and motivational (lifestyle) DVDs, for all levels. The series integrates core fitness with the fresh air experience and a sustainable healthy lifestyle. The programs offer gentle introductions into sports like: nordic ski walking, trail running, core-body strength, yoga, Pilates, flexibility, paddling, jogging, biking, skiing, snowshoeing, and martial arts. For the enthusiastic skier the Nordic Skiing Project is the most comprehensive reference ever produced for Nordic skiing and engages the entire snow-sports industry. It is delivered in a progressive series of award-winning DVD's for the beginner to expert; capturing the science, art-culture and history of nordic skiing. It is the essential owner's manual for every nordic skier, and an enduring product in a box; for the price of a ski lesson. The Science of Nordic Skiing DVD series provides an in-depth examination of the sports science. It is tailored to engage the skier the more richly, with clever and concise delivery of: technique, training, equipment and advanced moves; in four volumes. These

series are intended for intermediate, advanced and expert level skiers, coaches, instructors and for the certification of nordic ski professionals. Offer advanced biomechanical analysis using motion capture high-definition high-speed video cameras and the most advanced steadicam skills in the film industry. Analysis is completed on a super-computing-



grid and supervised by a biomechanical engineer, sports specific trained kinesiologist, certified Olympic level coach and World cup gold medalist. We also have the ability to provide immediate video feedback to the skier while moving down the track on heads-up display and ipod touch.



## The lab is open year round, regardless of conditions



- \* Tracked performances
- \* Designer programs.
- \* Expert lead group training.
- \* Accelerated skill skills development and fast

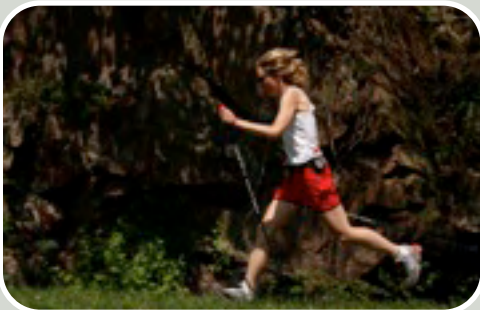
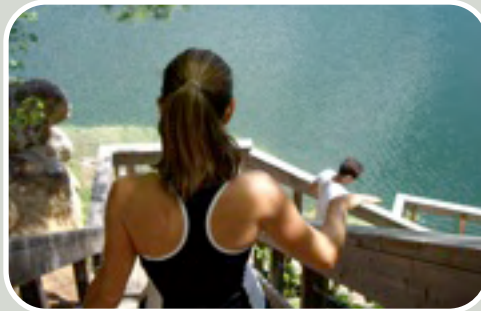




## Full spectrum of skills



Join our program and gain proficiency in trail running, parcourse, free running, classic and skate skiing, specific and core strength, power-endurance, dry-land training with ski walking, striding, bounding, plyometrics, rollerskiing (optional). The program also integrate eastern training philosophies with western sports sciences.



## Ski-specific dry-land training is critical for good skiing

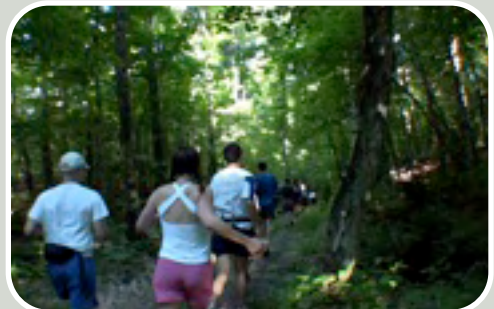


Thoughts turn to skiing and snow-shoeing, after the fall colours have long since faded, and the first cold winds have descended over the ground... that is leaving it a bit late.

Do you want to have a stellar ski season? Yes? Then, the single most important thing that you can do for yourself is to participate in specialized dry-land training. Even if you are not a skier, this is a great way to stay in shape - injury free.

Ski Fitness is all about proper conditioning for skiing on snow using specialized dry-land exercises. Once snow arrives, skiing itself offers a superior total body fitness experience. Not only will natural ski fitness training fast-track performance, but it will accelerate the transition on to real snow and prevent injuries in the long term. This can start with a few simple exercises and progressions. For the skiing aficionado, we prescribe a regular dry-land training routine.

Specific strength conditioning exercises use: calisthenics, plyometrics, and natural resistance to sculpt a skier's body.



## Personal year-round program in the context of group training



Group training sessions are fully integrated into personal training plans. A typical week is scientifically constructed to cover all aspects of your long term athletic development.



# annual training



You see here, an example of how we structure a year round program which covers both cardio-muscular conditioning and skill development. We will build your strength and endurance base, and work on technical fundamentals. As your competitive season approaches we will develop cardiovascular and muscular power-endurance with more intensity and sport-specific training modes. This is a winning formula which works for everyone. An athlete that masters the basics of technique and practices the fundamental principles of training will be far more successful than those who follow a more complex path. Take care of the big details first.

There are some key things you need to know about training for high performance sports. They involve technical proficiency, mental, muscular and cardiovascular fitness, and broad experience involving touring, racing or expeditions.

The first training principle is that of specificity. If you want to be a skier, you have to ski. For most of us this is limited to during winter months, so we must simulate skiing with cross-training as best we can. This is why skiing is a good model for multi-sport coaching fundamentals. There is no off-season for ski training. Plan cross-training in a variety of sports starting in the spring through into summer. This is a time for rebuilding. Much of the workouts should concentrate on muscular strength using weights, and cardiovascular endurance in such activities as running and biking. As the summer progresses, the activities must become more skiing-specific. Roller skiing, and ski-striding with poles become the major activities by the Fall. The strength training also becomes more specific; migrating from heavy free-weights to plyometrics and drills on roller skis. It is important that the more intense work-outs also be the more ski specific ones.

Periodicity and progressive loading are other important principles of training. That is, alternating between hard and easy days, or hard and easy weeks. The training load needs to be increased progressively to obtain further adaptation and improvement in performance. Thus, gradually building the intensity and hours up to a peak. The body requires rest in order to complete the performance-enhancing hard workouts.

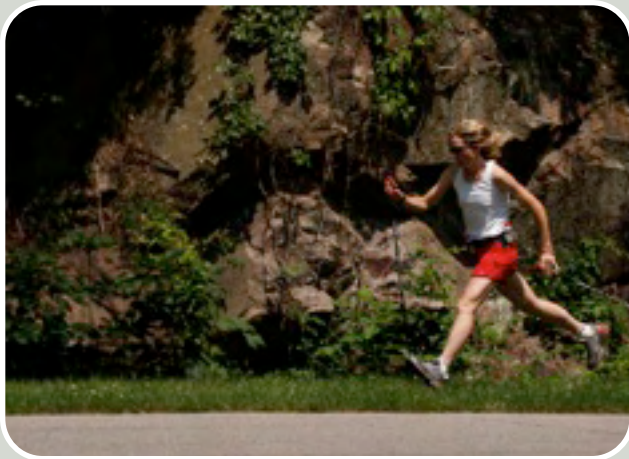
In the spring and summer, the training should concentrate on strength and endurance. As you progress through the fall, more intensity, in the form of intervals should be incorporated into the hard days. The strength training switches to power and then speed. By the peak in February many athletes are alternating racing or practicing light recovery. Too many people train too many hours at medium-well effort rather than having high dynamic range in their training intensities. Consequently, they cook their performances medium-well.



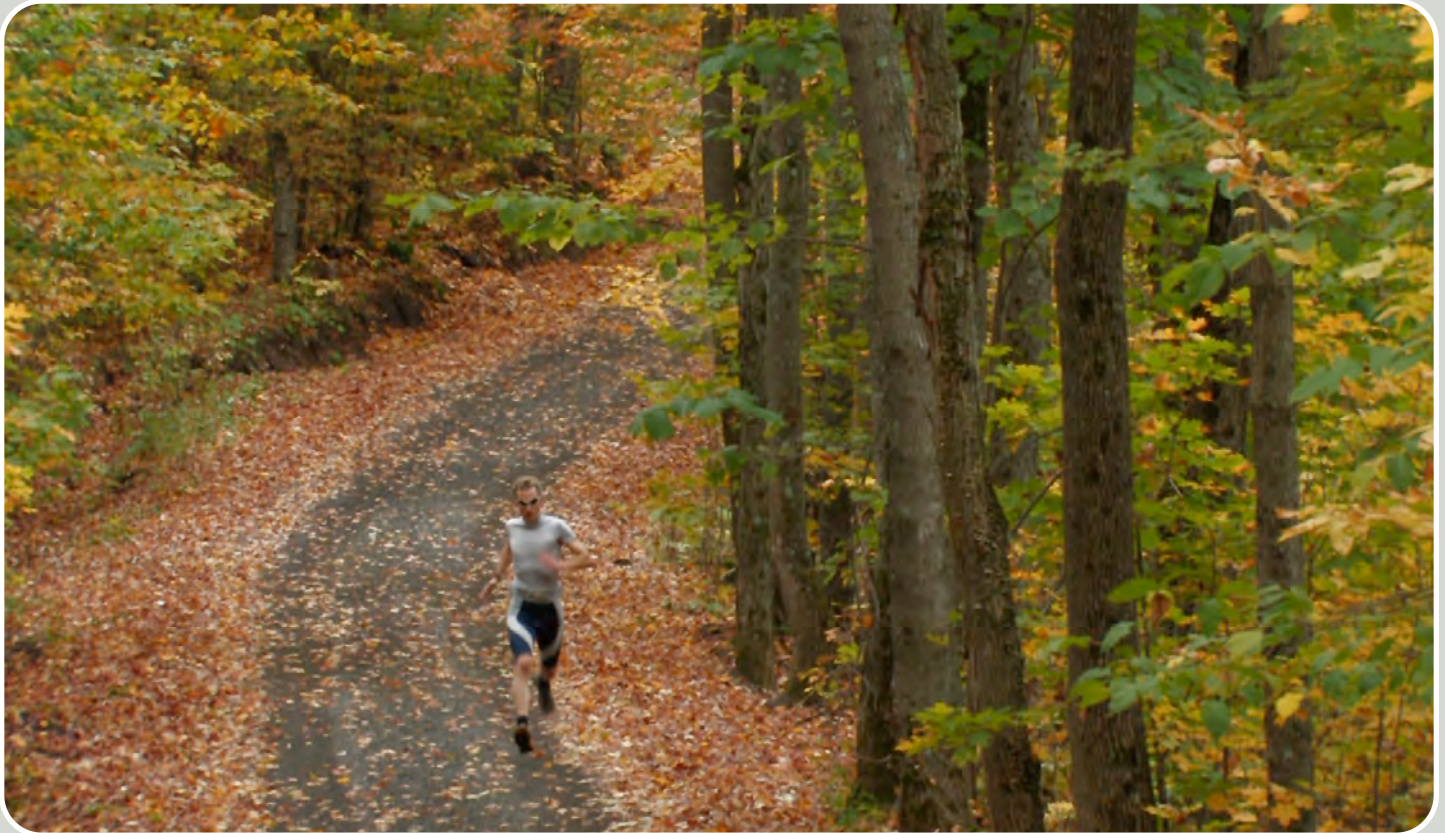
## Specificity



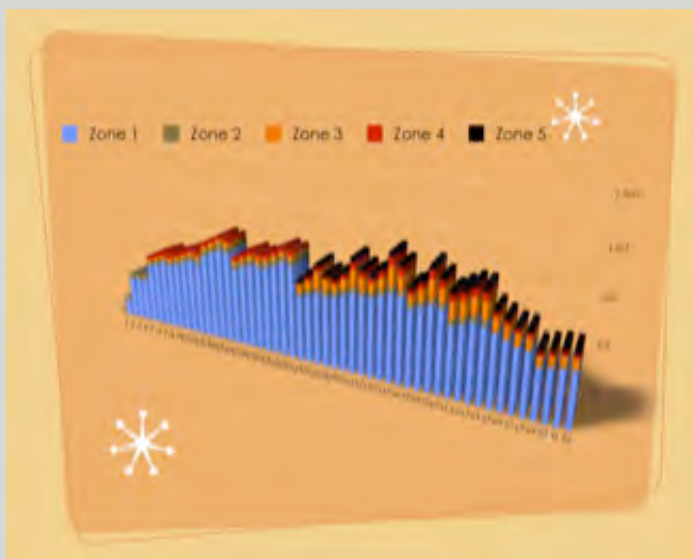
We have found in the last 30 years of hard-training that trail running, ski-striding and roller-skiing are the textbook combination of activities that best prepare someone for Nordic skiing. Even if you are just interested in all-round physical conditioning, body toning, coordination and core-strength – check this out.



## annual training program



There is an underlying intelligence around all group workouts as part of a comprehensive annual training program. The secrets for fitness training can be presented in essential paired-components consisting of: Setting goals, planning and commitment; Integrating both body and mind; Natural fitness that provides endurance, strength, power, speed, agility, flexibility, balance, coordination and skill development; Quantity and quality of training hours; Regularity and repetition; Intensity and recovery which covers: work load, overcompensation, relaxation recuperation, dynamic range, polarized training; Periodization involving progression and frequency and systemization; Specificity and diversity; Being mindful, thus attending to details, big and small. You will notice that many of these principles are paired together with an opposite, or dual concepts. The secret is how you tune and balance these fundamentals to optimize performance.










# Strength\_lab

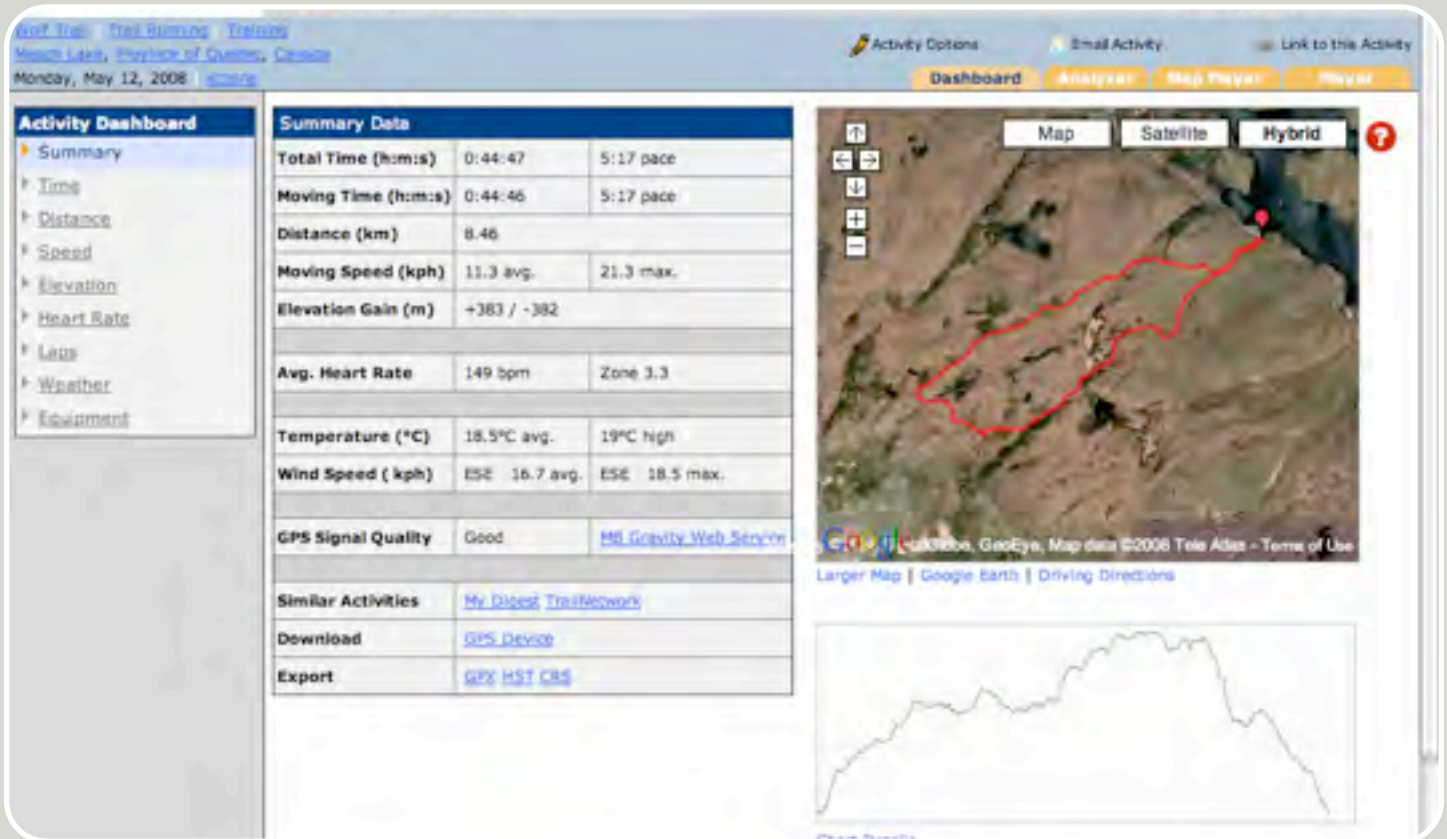


Mike is a cross-country skier and strength coach. We'll set you up with a weight training program that will really work. After all, XC skiing is a power endurance sport with total body muscular commitment.

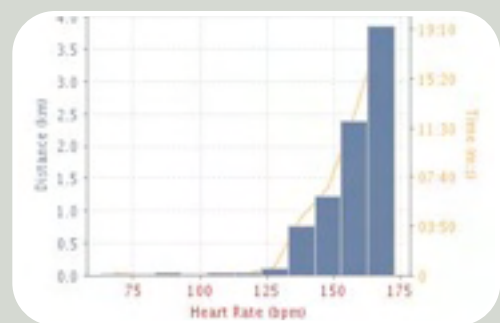
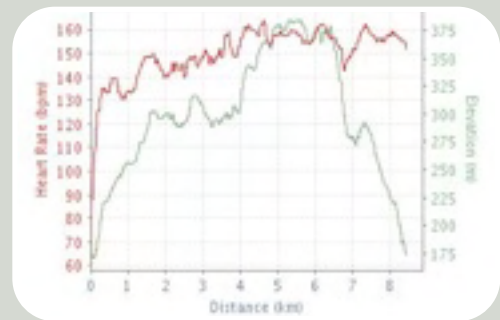
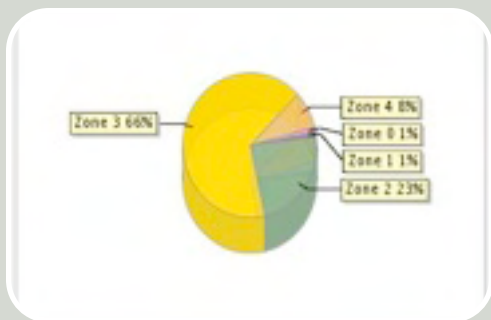
EXERCISE	MUSCULAR CONDITIONING MATRIX							
	PHASES	RECOVERY [2 weeks]	BASE [20 weeks]		INTENSITY [16 weeks]		PEAK [2 weeks]	RACE [10 weeks]
		Anatomic Adaptation [4 weeks]	Hypertrophy [10 weeks]	Maximum Strength [8 weeks]	Conversion		Maintenance	
		1-2x15 reps @ 50% max 2:0:1 count	2-4x10 reps @ 75% max 5:1:4 count	4-6x4 reps @ 80% max 2:0:1 count	Power [8 weeks] 2-4x5 reps @ 70%max dynamic	Power- Endurance [8 weeks] 1-2x25 reps @ 50%max 1:0.5 count	Speed [2 weeks] 1-2x20 reps @ 10%max fast	[10 weeks] 2x15 reps @ 50% max
	<b>Weights General Strength</b>	Choose (6)	Choose (8)	Choose (8)	Choose (6)	Choose (5)	Choose (2)	Choose (4)
	Lat Pull-downs	2x15	4x10	6x4	4x5	2x25	2x20	3x15
	Military Press Front Press	2x15	4x10	6x4	4x5	2x25		3x15
	Arm curls	2x15	4x10	6x4	4x5			3x15
	Tricep dumbbell extensions	2x15	4x10	6x4				
	Bench press	2x15	4x10	6x4	4x5	2x25		3x15



# Motion based analysis of all workouts



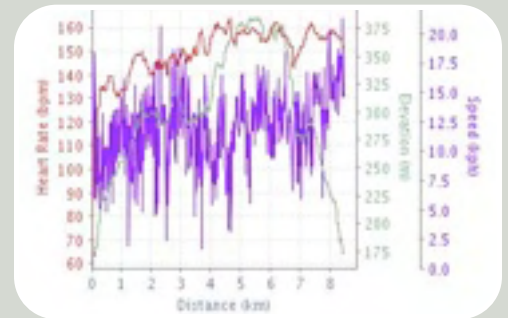
Workouts are scientifically recorded using motion tracking analysis so you know exactly what you have achieved. Motion analysis is a web application that translates GPS data into functional analysis and online mapping for endurance and outdoor athletes. Activity-based analytics include detailed time, distance, speed, elevation, heart-rate, power, and cadence metrics broken out in spectacular tables and charts. Even the local weather is integrated into the log of to the workout. Break-out this data by uphill, downhill, and flat grades, or export the GPS Mapping to Google Earth for Virtual Racing or pacing.



# Testing



The Lab offers the most sophisticated and accurate ski-specific fitness testing in affiliation with [www.peakcentre.ca](http://www.peakcentre.ca) and the Ottawa High Performance Centre [www.ophc.ca](http://www.ophc.ca) and A-Step-Up Gym in Chelsea [www.a-step-up.com](http://www.a-step-up.com) supplemented with pragmatic field-testing in the track or on the trail.

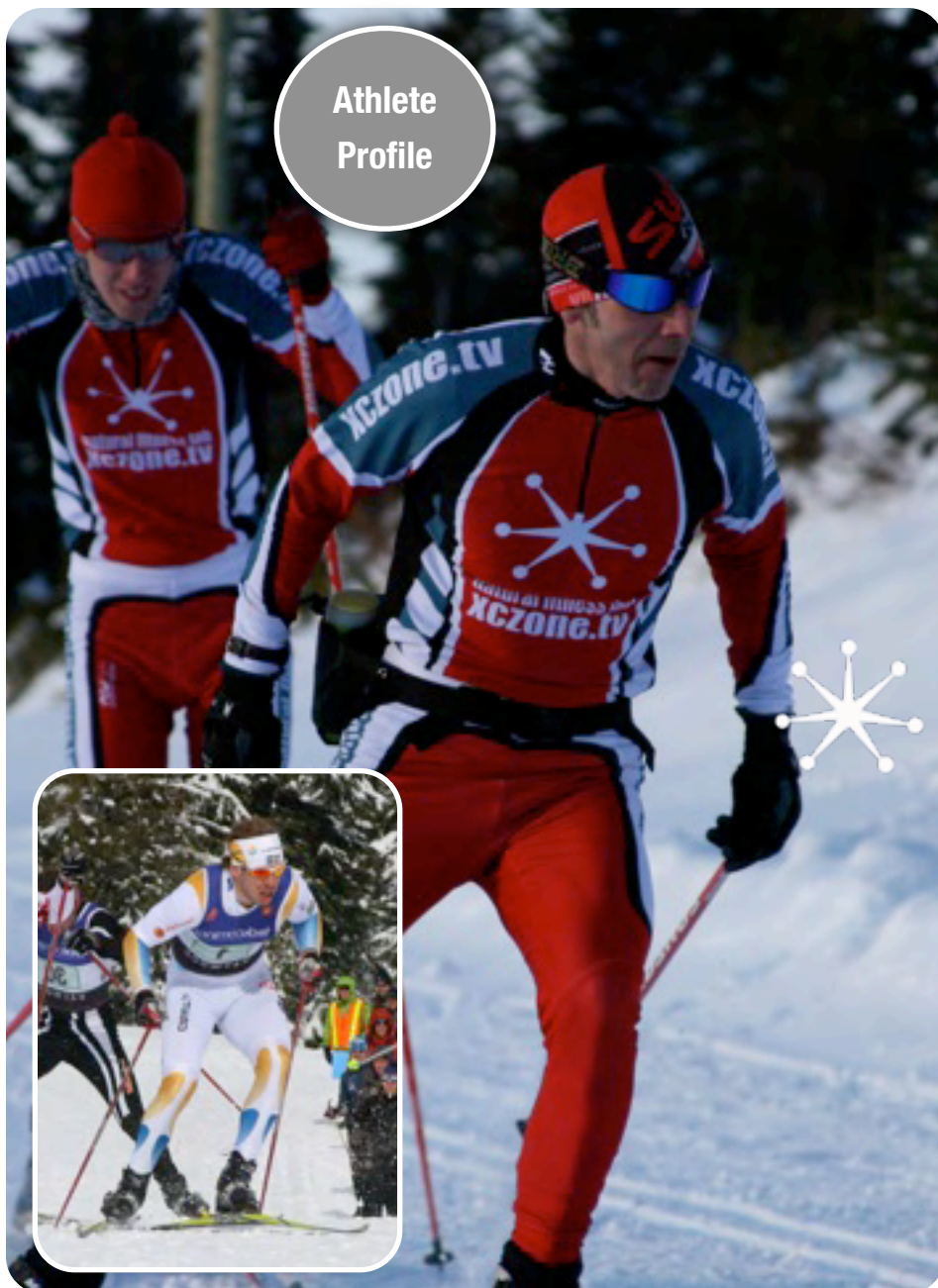




# PERSONAL WORKPLAN\_2008 EXAMPLE

- Base strength and endurance
- Structure and form
- Fix bounce
- Fix flying elbows
- Low elbow recovery
- Plant poles further forward
- Move into empty space
- Stretch out ambs
- Respect Centre line
- Full stride
- Hips forward
- Athletic lean forward
- Core led motion
- Application of weight by dropping down onto ski
- Torso lead arms and pull through
- Relax
- Breathing
- Sports psychology (relax, focus, visualization)
- Optimum gearing
- Tempo while tired
- Outside edge
- Deep knee bend
- Lightening fast arm recovery
- Pull not push
- Flexibility and elasticity
- Shock and guarded

## Athlete Profile



## Think !

- Form (position, body awareness, muscular skeletal structure and angles)
- Body unity
- Rooting and the vertical dimension
- Centre-line (angulation, inclination and rotation)
- Weight shift and preloads
- Stride length, tempo and gearing
- Timing and Coordination
- Core
- Fluidity
- Strength and Endurance
- Power-endurance
- Speed

## Strengths

- Abandonment and fluidity
- Large frame on which to build muscle
- Serious about training intelligently
- Healthy sustainable lifestyle
- Risk taker
- Natural Speed
- Ability to train and race hard
- Motivated to achieve and persist
- Positive response to failure
- Innate downhill running skills
- Highly coordinated
- Excellent physical literacy
- Multi-sport skills
- Elite coaching
- The best high performance program
- Intelligent



# Talent\_lab

expert -lead coaching support



Combined, the two principals of the Natural Fitness Lab David and Lise, have raced 2 Olympic Games and 200 World Cups; winning 7 medals, including four (4) Gold. Each of them holds past National Champion titles. Lise is a sports physiologist and educator and David is a practicing biomechanical engineer. Together, they have mentored thousands of people to ski to their potential - including Olympics dreams. Look us up in Who's Who in Canadian Sport, Volume 3 1999 by Bob Ferguson ISBN 1-894282-00-0.

We have assembled top-talent that would make a national team envious. It is certainly the strongest support team for any adult ski or running program in North America.

- Olympic Coaches and Athletes
- World Cup Medalists
- National Champions
- World record holders
- Physiotherapist
- Sports Psychologist
- Kinesiologist
- Biomechanical Engineer
- Strength Trainer
- Nutritionist
- Medical Doctors
- Wax and equipment technicians

Our methods are harmonized with and endorsed by the National Coaching Certification Program, aligned with Cross-Country Canada, Biathlon Canada, the Canadian Association of Nordic Ski Instructors (CANSI), the US Ski Association (USSA) doctrine and the Long Term Athlete Development (LTAD) program.

# COST SCHEDULE

## Expert Guided Group Training

This is the core offering for the program, and the one which we have the most passion. Much of what we do is for purely philanthropic reasons and nurturing both trail running and nordic skiing in North America. There is no cost to the group trail running sessions for the spring and summer. We will guide you through a perfect conditioning program using the terrain for training effect. Come fall and winter there are costs associated with insurance and direct competition amongst club programs. The average club adult ski program would cost you \$800. We offer a graduated price with costed options guaranteed to suit your ambitions and pocket.



EXPERT LEAD GROUP TRAINING	
GROUP TRAIL RUNS	FREE
FALL/WINTER SKI PROGRAM	<b>\$150 01 SEP</b> <b>\$380 AFTER 01 JAN</b> * FREE for all college and university students * \$10 drop-in fee
COSTED OPTIONS	
TRAIL RUNNING CLINIC	<b>\$100</b> * 50% discount for those registered in group program
TECHNIQUE SKI CAMP	<b>\$100</b> * 50% discount those registered in group program
DVD	<b>\$40</b> * 50% discount those registered in group program
RACE SUIT	<b>\$160</b>
ANNUAL TRAINING PLAN AND VIRTUAL COACHING	<b>\$200/YR</b> * special arrangements can be made for fitness testing and biomechanical analysis

## WWW.XCZONE.TV

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## WWW.NATURALFITNESSLAB.COM

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