



Board/Authority Authorized Course Framework – Sport Performance 10

School District Name: Kamloops/Thompson	School District Number: SD73
Developed By: Mary Bartucci	Date Developed: February 2018/March 2005
School Name: Sa-Hali Secondary	Principal: Sean Lamoureux
Superintendent Approval Date: (for School Districts Only)	Superintendent Signature: (for School Districts only)
Board/Authority Approval Date:	Board/Authority Chair Signature:
Course Name: Sport Performance	Grade Level of Course: 10
Number of Course Credits: 4	Number of Hours of Instruction: 120

BOARD/AUTHORITY PRE-REQUISITE(S): PHE 9

SPECIAL TRAINING, FACILITIES OR EQUIPMENT REQUIRED:

<ul style="list-style-type: none"> • Swiss and Medicine Balls (and Bosu if available) • Weights (free and universal) • Plyometric Equipment (hurdles, boxes etc.) • Speed and Agility Equipment (ladders, skipping ropes, stopwatches etc.) • Cardio equipment (stationary bikes etc.) • Access to technology – ex. computers/chrome books • Fitness tools such as stopwatches, calipers, scales etc. 	<ul style="list-style-type: none"> • Weight room/aerobic studio/Gym or Field • Access to classroom and/or multimedia equipment • Utilize local/community facilities and resources (TCC, pools, Pacific sport etc.) 	<ul style="list-style-type: none"> • Teacher of the course should have a Physical Education Degree and Human Performance Experience • Utilize local specialists as guest speakers
--	---	---

COURSE SYNOPSIS:

This course will expose students to training methods used by elite athletes. Students will learn to enhance their physical performance through theory and practice in the areas of muscular strength and power, muscular endurance, speed and agility, balance and flexibility, coordination and reaction time, and aerobic/anaerobic conditioning. They will also develop their knowledge in the area of sport psychology, nutrition, and injury

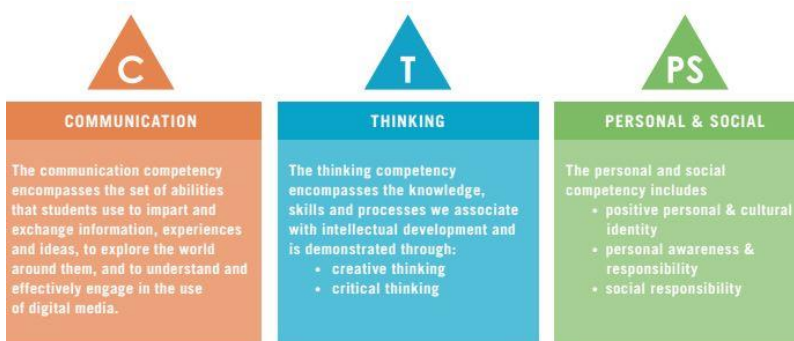
prevention. This course is intended for athletes, regardless of the type of sport, who want to improve their performance and whose goals are to participate in higher level competition.

GOALS AND RATIONALE:

The traditional methods of training competitive athletes have progressed beyond repetitions of technical skills at practices and the execution of skills at competitions. This area has become based on ever-evolving scientific research to optimize performance. An emphasis has been placed on individual performance and the progression of skill development. The focus has shifted towards the development of physical and mental skills of the individual in the months prior to and after the regular season. It is necessary for elite athletes to achieve peak performance by training out of season. With training being a yearlong process and commitment, elite athletes benefit from programs that target specific physical and mental skills that are both attainable and measurable.

The goals of the students in this class are:

1. To improve athletic performance – mental and physical.
2. To discover and access resources to support growth as an athlete and competitor.
3. To learn to monitor and self-assess one's own progress and performance.
4. To individualize growth to the specific needs of the student athlete.



Competencies pervade all Big Ideas in this course. Many of this curriculum will be through multiple core competencies - Communication, Personal and Social Responsibility, and Thinking. – so that students become more connected to their own learning and each other. When the connection happens, learning is likely to endure long after the course is over.

ABORIGINAL WORLDVIEWS AND PERSPECTIVES:

One of the intentions of this course is to support and encourage integration of the First People's Principles of Learning. For example, one goal is to foster a sense of community and connectedness between students in the class - even though they are each on their own path, with their own plan. Consequently, students will learn and appreciate the benefits of working together to help each other achieve their own individual goals. By creating an atmosphere of respect and non-judgement, students will be able to perform in a safe, encouraging and risk-free environment where they celebrate each other's successes and support each other through difficult or challenging times. Individually, students will learn that achieving one's goals takes patience and time, as well as commitment to hard-work. Self-reflection will not only help them discover the athlete they can be, but also help them see consequences (positive and negative) of their actions (ex. Effects of eating healthy vs. eating empty calories on performance) on the journey to become that athlete.

BIG IDEAS:

<p>Competing at a higher/elite level requires training other than traditional practices and games to properly develop multiple types of skills.</p>	<p>Competing at a higher/elite level requires mental training as well as physical training.</p>	<p>Competing at a higher/elite level requires implementing specific lifestyle habits as well as training habits.</p>	<p>Athletes who want to compete at a higher/elite level have the ability to take responsibility for their own training/program development with proper education and direction.</p>
--	--	---	--

LEARNING STANDARDS:

Curricular Competencies:	Content:
<p><i>Students are expected to do the following:</i></p> <p>Training Introduction:</p> <ul style="list-style-type: none"> • <i>Accurately perform a variety of warm up and cool down exercises</i> • <i>Design an effective warm up and cool down routine for a particular warm up</i> • <i>Use training theory and practice acquired in the course to design and utilize an exercise program(s) specific to their needs</i> • <i>Evaluate, monitor and adapt the program through testing and data collection</i> <p>Training Practice (With focus on Strength, Power, Muscular Endurance, Speed, Agility, Aerobic and Anaerobic Conditioning, Balance, Flexibility, Coordination, and Reaction Time)</p> <ul style="list-style-type: none"> • <i>Apply understanding of body mechanics to increase/improve performance through proprioceptive body awareness</i> • <i>Accurately perform a variety of exercises and workouts that help develop “core” strength</i> • <i>Develop a proficiency in a variety of body weight exercises</i> • <i>Explore and correctly perform a variety of weight lifting (push/pull/lift) exercises</i> • <i>Break down explosive lifts into different steps to enhance power</i> • <i>Explore and correctly perform a variety of plyometric exercises</i> • <i>Correctly and safely perform weight lifting exercises with an emphasis on developing</i> 	<p><i>Students are expected to know the following:</i></p> <p>Training Introduction:</p> <ul style="list-style-type: none"> • <i>The parts of an effective workout</i> <ul style="list-style-type: none"> ➤ <i>Warm up</i> ➤ <i>Cool down</i> ➤ <i>Principles and components of exercise</i> ➤ <i>Proper form and alignment</i> ➤ <i>Gym etiquette and safety</i> • <i>Considerations for building an effective program</i> <ul style="list-style-type: none"> ➤ <i>Focus</i> ➤ <i>Time frame</i> ➤ <i>Resources (location, equipment etc.)</i> <p>Training Theory</p> <ul style="list-style-type: none"> • <i>How to select appropriate exercises for your goals based on the eleven components of fitness and:</i> <ul style="list-style-type: none"> ➤ <i>Basic anatomy (what parts you want to work on)</i> ➤ <i>The types of movements/skills they are trying to perform</i> ➤ <i>How bodies produce/sustain energy for exercise</i> ➤ <i>Safety – in exercise performance, rest and recovery etc.</i> <p>Training Supports (getting the most out of your workout/program)</p> <ul style="list-style-type: none"> • <i>Goal-setting – concepts and skills</i> • <i>How to pick the appropriate mental training technique and/or support for what they need – ex Mental toughness, focus, stress management</i>

muscular stamina

- *Explore and develop a proficiency in a variety of exercises that increase aerobic and anaerobic capacity*
- *Explore and develop a proficiency in a variety of training techniques and exercises specific for improving SAQ*
- *Explore and develop a proficiency in a variety of balance and flexibility training techniques and exercises*
- *Explore and develop a proficiency in a variety of coordination and reaction time exercises*
- *Using a variety of non-traditional equipment, explore different variations of common exercises that could be beneficial to the athlete*
- *Explore a variety of non-traditional or alternative forms of training – i.e. Functional training, HIIT training, cross-fit etc.*

**Training Supports
(Sport Psychology, Nutrition, Injury Prevention and Rehabilitation)**

- *Develop and monitor a set of personal goals for the course of the semester – short term and long term, performance and outcome*
- *Study a variety of mental training exercises and put into practice to the ones that will help the student improve performance and meet goals*
- *Describe and perform appropriate activities for personal stress management and relaxation*
- *Design and analyze a personal nutrition plan*
- *Identify and incorporate various injury prevention strategies*
- *Analyze and use different sporting/safety equipment within their workout/training program*

etc.

- *Eating and drinking for optimal performance*
- *Positive and negative effects of different supplements on performance and health*
- *Sports injury prevention techniques and resources*
- *Sports injury rehabilitation supports*

ELABORATIONS:

Big Ideas Elaborations:

1. Mastery of skills takes time, and training done in formal practice settings isn't enough time to grow adequately as an athlete to perform at an elite level.
2. Sports require the use of multiple fitness components (ex. Speed, agility, power etc.), and athletes need variety in their training to cover each of these. Also, variety in training also produces a more well-

rounded athlete physically – who can respond to more physical demands than someone that relies on the work they do in practice alone.

3. Competition brings mental challenges as well as physical, so tools like goal-setting, mental toughness etc. will help prepare the athlete to face those challenges, and teach them the most effective and efficient ways of dealing with them as they come up.
4. If athletes want their brains and bodies to perform at their best, they need to take care of them with proper nutrition, hydration, rest etc.
5. With proper education, an athlete doesn't need to depend on an adult/coach/professional for everything. Athletes who are self-motivated, can be self-directed and take charge of some of their own training.

Curricular Competencies Elaborations:

1. Training Introduction:

- Proper warm ups include low intensity movements such as riding a stationary bike, slow jog and/or dynamic stretches. Effective cool downs are ones that slowly go from high intensity exercise to very low, generally finishing with some static stretches.
- Learning how to determine what is needed to design and perform an effective workout.
For example:
 - How you know how much weight is appropriate for you to lift, push or pull, is understanding 1 Rep Max.
 - How you know which exercises to choose is understanding the Principles of Specificity
- Athletes need to know if the exercises or workouts they are doing are improving their performance. Fitness testing is one way to measure improvement. An example of an exercise that measures cardiorespiratory improvement is the 12 minute run.

2. Training Practice:

- Exercise is a series of body movements made with through some sort of a challenge (i.e. An opposing force). It is important to understand how certain body parts work (and work together) to produce these movements so an athlete can maximize performance and also prevent injury.
- Examples of types of exercises used in workouts:
 - Core – exercises that strengthen muscles of the torso (back, abdomen, chest)
 - Resistance Training – exercises that build strength using an opposing force (ex. lift, push, pull, hold or suspend)
 - Plyometrics – exercises that build explosive power
 - SAQ – Speed, Agility and Quickness drills
 - Aerobic – exercises of lower intensity and longer duration, Oxygen levels sustain the exercise
 - Anaerobic – exercises of higher intensity and short duration, Oxygen levels deplete quickly
- Examples of non-traditional equipment that may be used:
 - Bosu balls
 - Swiss balls
 - Resistance Bands
 - TRX

- Examples of new/current types of training exercises:
 - HIIT – High Intensity Interval Training
 - Functional training – exercises that use multiple body parts and movements to mimic a movement specific to a sport

3. Training Supports:

- Types of goals:
 - Short term vs. Long term – difference is duration or time frame. For example, short may be one week, long may be one season.
 - Performance vs. Outcome – difference is where it comes from – performance goals are how well you want to do something while outcome is achieving something outside of the body like a trophy or a championship.
- Examples of Mental Training exercises:
 - Self-talk
 - Imagery/Visualization
 - Using a mantra
- Examples of Stress-Reduction/Relaxation exercises:
 - Meditation
 - Breathing techniques
 - Emotive imagery
- Without proper nutrition and hydration, an athlete will not reach optimal performance. It is important that athletes know what nutrients they need to perform at their best; and conversely, what foods will hinder performance.
- Many strength training exercises are done not only to improve performance, they are also done to support joints and prevent injuries from happening. Injury prevention is a major component of training programs now for elite athletes.

Content – Elaborations:

1. Training Introduction:

- Exercise has many effects on athletic performance. On a basic level, it keeps our muscles in proper working order (“use it or lose it”). Once a level of muscle tone is established, exercises help us refine our movements so they become more accurate and efficient.
- Proper warm ups and cool downs are important in a workout because they ease the body into an intense activity – and therefore prevents injury from overexerting certain body parts while they are cold. Warmups increase blood flow to the muscles, which brings heat and oxygen, and allows muscle to gradually become more elastic. Cool downs prevent blood from pooling in the muscles because heart rate and blood flow decrease gradually.
- Form – how an exercise is performed
Alignment – appropriate or proper body position
- Principle of Specificity – training or exercise should be relevant and appropriate to the sport/skill you are trying to improve
Principle of Progressive Overload – your body needs to be challenged into doing something it is close to perfecting but can’t quite yet to see growth, then gradually increase in volume, intensity, frequency or time in order to continue to see growth and improvement
FITT – principle used to help design your workout/exercise
F – Frequency – how often should you do it?

- I – Intensity – how hard should you do it?
- T – Time – how long should you do it?
- T – Type – what kind should you do?
- Season – the part of the calendar where athletes are competing in their sport
- Post-Season – the part of the calendar when the season is over, focus is on rest and recovery in the beginning and maintenance of fitness towards the end
- Pre-Season – the part of the calendar devoted to getting into “game shape” and bringing performance levels up for tryouts or evaluations etc.
- Examples of sports bodies locally that support athletes are Pacific Sport, TRU sport camps, Whitecaps development program etc.

2. Training Theory:

- An example of weight room etiquette is to make sure the equipment you use is returned to its place after you are done so the next person can use it.
- It is important to understand basic anatomy and physiology of the muscles, bones, joints, heart and lungs, to be able to properly understand exercise and athletic performance.
- Endurance – how long you can do something
- Strength – how much you can resist an opposing force – lift, push, pull, hold, suspend
- Speed – how fast you can do something
- Balance – how well you can maintain body position
- Coordination – how well your senses and body parts can work together to produce accurate movements
- Reaction time – how fast you can react to a stimulus
- Flexibility – the range of motion available (angle of joint/lengthening of muscle)
- Power – the ability to exert your max force in as short a time as possible
- Agility - ability to change the body's position efficiently and accurately
- Core strength is important because most athletic movements either originate in the core, or go through the core. If core is not strong and stable, the movement won't be either.
- Muscular strength is how much force your muscle can exert, while Muscular Endurance is how long your muscle can perform an action.
- Three ways the body produces energy for exercise:
 - Using creatine phosphate
 - Using glycogen
 - Through aerobic respiration
- Aerobic exercises train the body to work for long periods of time at a lower intensity, where anaerobic exercises train the body to work at high intensities for a short duration of time.
- One example of how cardiorespiratory endurance is measured is to use $VO_2\text{max}$.
- R.O.M. – Range of Motion
- Types of stretching – Static, Dynamic, Ballistic, Proprioceptive neuromuscular facilitation (PNF)

3. Training Supports:

- SMART is an acronym used to help design appropriate goals:
 - S – specific
 - M – measurable
 - A – appropriate

- R – realistic
- T – time-bound

- Examples of effects of stress on athletic performance are lack of focus or performance anxiety.
- All bodies need time to rest and recover and getting enough sleep for an athlete is key.
- Athletes expend more energy than that average sedentary person; therefore, two key nutrients needed are good carbs for energy and protein for muscle repair and growth.
- One effect of poor nutrition on athletic performance is low or not enough energy to sustain activity at a certain level.
- Dietary supplement - a product taken orally that contains one or more ingredients (such as vitamins or amino acids) that are intended to supplement one's diet and are not considered food.
- Without proper physical conditioning, the chances of the body getting injured increases because of the lack of ability or strength to withstand forces and stressors faced in sport.
- Common sports injuries – muscle strains and tears, ligament sprains and tears, shin splints and concussions.
- Examples of resources in the community that aid in assessment and rehabilitation of injuries are physiotherapists, athletic trainers, Registered Massage Therapists and Orthopedic Surgeons.

RECOMMENDED INSTRUCTIONAL COMPONENTS:

- | | |
|---|--|
| <ul style="list-style-type: none"> • Direct instruction • Indirect instruction • Personal assessments of development • Daily journal • Daily Nutrition Log • Daily Training Log • Modeling | <ul style="list-style-type: none"> • Group work • Analysis of articles • Interactive instruction • Individual instruction • Student presentations • Essays/reports |
|---|--|

RECOMMENDED ASSESSMENT COMPONENTS:

Type of Assessment:	Details:	Weight:
Formative	<ul style="list-style-type: none"> • Daily Performance Mark • Daily Journal/Log 	<ul style="list-style-type: none"> • 50% • 10%
Summative	<ul style="list-style-type: none"> • Fitness/Skill Testing • Written Assignments/Projects 	<ul style="list-style-type: none"> • 20% • 20%

LEARNING RESOURCES:

- Fitness for Life Canada – LeMasurier, Corbin, Baker, Byl
- Mind Gym – Mack, Casstevens
- Essential Anatomy 5 – 3D4Medical.com – App for Mac
- iMuscle2 – 3D4Medical.com – App for iPhone/iPad

- Jumping Into Plyometrics 2nd Edition - Chu
- Stretch to Win – Fredrick, Fredrick
- High Performance Training for Sports – Joyce, Lewindon
- Functional Training for Sports – Boyle
- Bodyweight Strength Training Anatomy – Contreras
- Fifa 11+ Warm Up - PDF

ADDITIONAL INFORMATION:

This course will utilize the principles found in many sport bodies within Canada. Many of the sport bodies offer opportunities for athletes to be supported in their endeavors. As well, they may offer various forms of funding.

- **Pacific Sport** –
 1. Their Mission is: To create a dynamic environment for sport performance at all levels by integrating world-class Athlete Services, Coaching Excellence, and Long-Term Sport Development opportunities.
 - a. The athlete services curriculum is the cornerstone of our Athlete Services. It is a menu of programs and services aimed at athletes that covers aspects of life both inside and outside sport, ensuring holistic development. The curriculum is categorized into three streams: Performance Services, Support Services, and Life Services.
 - b. The coach services curriculum is the cornerstone of our Coaching Excellence. It is a menu of programs and services aimed at coaches that covers aspects of life both inside and outside of sport, ensuring holistic development. The curriculum is categorized into three streams: Professional and Educational Services, Funding Services, and Resource Services.
- **Canadian Center for Ethics in Sport** –
 - The mission of the Canadian Center for Ethics in Sport is to promote ethical conduct in all aspects of sport in Canada.
- **Sport Canada** –
 - Sport Canada is a branch of the International and Intergovernmental Affairs Sector within the federal Department of Canadian Heritage. The department is dedicated to valuing and strengthening the Canada experience. Sport Canada has three divisions: Sport Programs, Sport Policy, and Major Games and Hosting. Sport Canada is an all-encompassing resource that will help support athletes in finding resources.

All of these resources may be found on the Web ad in many local communities. There are many other valuable resources available in many places: YMCA, YWCA, local gym facilities, trainers, physicians, therapists, and experts. Additional resources should be compiled and utilized in this course.