

Course Name: REC231 Agility, Plyometrics and Speed Training
Credit Value: 5
Prerequisite Course: None

Course Description

Sport Conditioning specialists assist elite and recreational athletes in their quest for greater speed and agility. This course will introduce students to the various equipment and drills used to improve the quick coordinated movements, and the running and jumping, of athletes from a wide variety of sports.

PLAR Information

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Course Learning Outcomes

Upon completion of this course, the student will have reliably demonstrated the ability to:

1. Explain the importance of proper sprint mechanics.

- 1.1 Discuss the "speed is born, not made philosophy".
- 1.2 Understand the role of muscle fiber type as it relates to speed production in running.
- 1.3 List the three areas of change that can improve an athlete's acceleration and speed.
- 1.4 Explain the role of proper posture, arm action, and leg action in sprinting.
- 1.5 Discuss basic guidelines for speed development programs.

2. Teach techniques to produce greater ground force.

- 2.1 Explain and demonstrate various "stand tall" or running posture drills for top speed running.
- 2.2 Explain and demonstrate various arm action drills for sprinting.
- 2.3 Explain and demonstrate various leg and foot action drills for sprinting.

- 2.4 Explain and demonstrate running acceleration techniques.
- 2.5 Design a warm-up pattern to develop proper sprint mechanics.
- 2.6 Conduct a speed evaluation (40 yard dash test) on a group of high school aged athletes.
- 2.7 Appraise the sprint form of select athletes and when necessary propose appropriate technical adjustments.

3. Explain the mechanics and physiology of plyometric training.

- 3.1 Describe the physiology involved in a plyometric movement.
- 3.2 Understand the role of base strength and power development in relation to plyometric training.
- 3.3 List Chu's 6 classifications of lower extremity plyometric exercises.
- 3.4 Discuss the concept of specificity when planning plyometric training programs.
- 3.5 List basic safety guidelines for plyometric training.

4. Teach drills to increase muscle velocity.

- 4.1 Explain and demonstrate three jump-in-place movements.
- 4.2 Explain and demonstrate three standing jumps.
- 4.3 Explain and demonstrate three multiple jumps.
- 4.4 Explain and demonstrate three box drills.
- 4.5 Explain and demonstrate three depth jumps.
- 4.6 Explain and demonstrate three bounding drills.
- 4.7 Explain and demonstrate three medicine ball tosses.
- 4.8 Conduct a vertical jump, three jump, and medicine ball toss test on a group of high school athletes.

5. Explain the importance of developing change of direction and smooth transitional movement patterns for athletes.

- 5.1 Discuss the role of coordination and agility in athleticism.
- 5.2 List the five fundamentals of agility.
- 5.3 Understand fundamental #1 – phases of change of direction.
- 5.4 Understand and explain fundamental #2 – feet.
- 5.5 Understand and explain fundamental #3 – funnel inverted.
- 5.6 Understand and explain fundamental #4 – force vectors.
- 5.7 Understand and explain fundamental #5 – forward lean.
- 5.8 Define closed skill and open skill practice as it applies to agility training for sports.

6. Teach agility drills with and without equipment.

- 6.1 Explain and perform basic athletic movement patterns (backpedaling, shuffling etc.) in terms of directional change.
- 6.2 Design and perform a variety of closed loop cone drills to enhance basic movement patterns.
- 6.3 Design and perform a variety of open looped drills to enhance movement and reactive skills.
- 6.4 Conduct the T-drill and Pro-Agility test on a group of high school athletes.
- 6.5 Research some of the commonly held beliefs (pro and con) about agility ladder training.
- 6.6 Design and demonstrate a well rounded agility ladder routine.

Evaluation Strategy

Grading System

A+ Honours	90-100%	B+	75-79%	C+	65-69%	D+	55-59%	R	Repeat	U	Unsatisfactory
A+	85-89%	B	70-74%	C	60-64%	D	50-54%	S	Successful	I	Incomplete
A	80-84%										

*For a complete detailed description please refer to the *Academic Calendar*.

Student Success

(Dial 5185 for Campus Life or 5301 for the Aboriginal Learning Unit)

Canadore is committed to Student Success and offers CONFIDENTIAL services to help you in your studies.

- Counselling helps with academic, career and personal/crisis issues.
- AccessAbility Services will accommodate you if you have physical, mobility, visual, auditory, medical and/or learning disabilities.
- Health Centre provides services to you in case of illness.
- Career Services offers career advice, resume and interviewing workshops.

Waiver of Responsibility

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