

Advanced Weight Training and Conditioning (0057)

Course Description

Throughout this course, students will learn about advanced principles of strength and muscle development, including progressive overload, specialized training, periodization, and advanced programming techniques. In addition to refining exercise techniques, students will learn how to prevent and rehabilitate common weightlifting injuries to ensure staying in top form. Students will understand the critical relationship between nutrition, supplementation, and training, to optimize body composition and muscle recovery. The use of regular assessments and data analysis will guide students to make decisions regarding their training progression. Current issues and trends in weight training and conditioning will also be discussed in this course.

Credits	Prerequisites
.5 Credit	Weight Training and Conditioning 0049
Board Approved	Revised
November 2023	

Required Assessments

District-wide, standards-based common summative assessments

Textbooks/Resources

None

Course Essential Understandings

- As a result of successfully completing this course, students will understand that:
- Advanced fitness level and optimal performance requires maintaining a healthy and balanced approach to training.
 - Muscle strength and size increase as the resistance progressively increases over time.
 - Achieving well-defined goals requires targeting specific muscle groups or movements.
 - Training cycles are divided into distinct phases to optimize performance gains and reduce overtraining.
 - Advanced training methods challenge the human body and break through plateaus.
 - Advanced injury prevention techniques sustain training without setbacks.
 - Nutrition, supplementation, and training is vital for optimizing performance, muscle recovery, and body composition.
 - Recovery is paramount in advanced weight training.

Course Essential Questions

What are advanced training methods?

Unit Overviews

Unit Name	Unit Description	Unit Essential Question	Instructional Standards	Assessed Standards
Unit 1: Review of strength training basics	Review of anatomy, safety, and proper techniques.	<ul style="list-style-type: none"> How does one use the FITT formula and overload principle to improve targeted training? 	Applies the terminology associated with exercise and participation in selected individual-performance activities, appropriately. (S2.H1.L1) Identifies types of strength exercises (isometric, concentric, eccentric) and stretching exercises (static, proprioceptive neuromuscular facilitation (PNF), dynamic) for personal fitness development (e.g., strength, endurance, range of motion). (S3.H9.L1)	Applies the terminology associated with exercise and participation in selected individual-performance activities, appropriately. (S2.H1.L1) Identifies types of strength exercises (isometric, concentric, eccentric) and stretching exercises (static, proprioceptive neuromuscular facilitation (PNF), dynamic) for personal fitness development (e.g., strength, endurance, range of motion). (S3.H9.L1)
Unit 2: Periodization, specificity, and goal setting	Introduction of the phases of strength training and the benefits of each. Identifying a goal of training and applying specific exercises to best meet the goal.	<ul style="list-style-type: none"> How do the five health-related fitness and six skill-related components work together to 	Applies the terminology associated with exercise and	Applies the terminology associated with exercise and

		<p>improve performance in self-selected skills?</p>	<p>participation in selected individual-performance activities, appropriately. (S2.H1.L1)</p> <p>Creates a practice plan to improve performance for a self selected skill. (S2.H3.L1)</p> <p>Develops and maintains a fitness portfolio (e.g., assessment scores, goals for improvement, plan of activities for improvement, log of activities being done to reach goals, timeline for improvement). (S3.H11.L2)</p>	<p>participation in selected individual-performance activities, appropriately. (S2.H1.L1)</p> <p>Creates a practice plan to improve performance for a self selected skill. (S2.H3.L1)</p> <p>Develops and maintains a fitness portfolio (e.g., assessment scores, goals for improvement, plan of activities for improvement, log of activities being done to reach goals, timeline for improvement). (S3.H11.L2)</p>
<p>Unit 3: Advanced programming</p>	<p>Students integrate all 5 health related fitness components as well as skill related fitness components into their workout plan to best meet the needs of their chosen activity and their personal strengths and weaknesses.</p>	<ul style="list-style-type: none"> • What are advanced training methods? 	<p>Refines activity-specific movement skills in one or more lifetime activities (individual-performance activities,). (S1.H1.L2)</p> <p>Develops and maintains a fitness portfolio (e.g., assessment scores, goals for improvement, plan of activities for improvement, log of activities being done to reach goals, timeline for improvement). (S3.H11.L2)</p> <p>Applies the terminology associated with exercise and participation in selected individual-performance activities, appropriately. (S2.H1.L1)</p> <p>Uses movement concepts and principles (e.g., force, motion, rotation) to analyze and improve performance of self and/or others in a selected skill. (S2.H2.L1)</p>	<p>Refines activity-specific movement skills in one or more lifetime activities (individual-performance activities,). (S1.H1.L2)</p> <p>Develops and maintains a fitness portfolio (e.g., assessment scores, goals for improvement, plan of activities for improvement, log of activities being done to reach goals, timeline for improvement). (S3.H11.L2)</p> <p>Applies the terminology associated with exercise and participation in selected individual-performance activities, appropriately. (S2.H1.L1)</p> <p>Uses movement concepts and principles (e.g., force, motion, rotation) to analyze and improve performance of self and/or others in a selected skill. (S2.H2.L1)</p>
<p>Unit 4: External factors, and training effectiveness</p>	<p>Students will explore external factors including but not limited to sleep, nutrition and how adding supplements to their diet can positively and negatively affect their training results. Current events, fitness tracking, injury prevention and recovery will also be covered.</p>	<ul style="list-style-type: none"> • How do nutrition and rest impact recovery and performance? • How can we use a portfolio to keep track of plans that include nutrition, assessment data, performance tracking, and goal setting with reflections, to 	<p>Creates a snack plan for before, during and after exercise that addresses nutrition needs for each phase. (S3.H13.L2)</p>	<p>Creates a snack plan for before, during and after exercise that addresses nutrition needs for each phase. (S3.H13.L2)</p>

		<p>improve performance and overcome barriers?</p> <ul style="list-style-type: none"> • How can we prevent setbacks in training with injury prevention? 	<p>Designs and implements a nutrition plan to maintain an appropriate energy balance for a healthy, active lifestyle. (S3.H13.L1)</p> <p>Applies the terminology associated with exercise and participation in selected individual-performance activities, appropriately. (S2.H1.L1)</p> <p>Relates physiological responses to individual levels of fitness and nutritional balance.(S3.H8.L1)</p>	<p>Designs and implements a nutrition plan to maintain an appropriate energy balance for a healthy, active lifestyle. (S3.H13.L1)</p> <p>Applies the terminology associated with exercise and participation in selected individual-performance activities, appropriately. (S2.H1.L1)</p>
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