

Wallenpaupack Area School District Planned Course Curriculum Guide

Exercise Science and Sports Medicine Career and Technical Education

Course Exercise Science (Spring senior year) 1 credit CTE Program (CIP 51.2604)

Course Description:

The Exercise Science and Sports Medicine program is designed for any student who may be considering going into one of the athletic or rehabilitative fields, such as physical therapy, athletic training, occupational therapy, fitness instructor, physical education, kinesiology, massage therapy, or sport nutrition. This program is a two and a half-year program that will prepare students to enter college with a comprehensive background in anatomy and physiology, rehabilitation, sport nutrition and emergency care. Students graduating from this program will have certifications in OSHA 10-hour health, first aid and CPR, and blood borne pathogens. Students will also be prepared to sit and take the ACSM personal training test if they choose to go into the personal fitness field. During their senior year, students will be doing clinical rotations at local facilities of the student's interest, such as, AT room, PT facility, hospital, and local fitness center.

Revision Date:

Oct. 2024- Ragonese

Wallenpaupack Area School District Curriculum	
COURSE: Exercise Science	GRADE/S: 12
Topic: Modern State of Health and fitness	TIMEFRAME: 1-2 days

COMMON CORE STANDARDS:
701, 702, 805 1000's

UNIT OBJECTIVES (SWBATS):
Identify the most prevalent chronic health conditions affecting modern society
Differentiate evidence-based practice from fitness fads and myths

INSTRUCTIONAL STRATEGIES/ACTIVITIES:
Power point

ANCHOR VOCABULARY:
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ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):
chronic disease presentation

EVIDENCE OF MASTERY/Cut Score (Keystone Exam):

DIFFERENTIATED INSTRUCTION (Remediation/Extension) (Process, Product or Content)

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):
NASM Essentials of Personal fitness, 7th ED
NASM CPT study guide 2023-2024

RESOURCE SPECIFIC VOCABULARY:

Wallenpaupack Area School District Curriculum	
COURSE: Exercise Science	GRADE/S: 12
Topic: psychology of exercise	TIMEFRAME: 2-3 days

COMMON CORE STANDARDS:
701, 702,

UNIT OBJECTIVES (SWBATS):
Describe common reasons why people avoid regular exercise
Evaluate various social influences on exercise adherence
Identify the psychological benefits of regular exercise

INSTRUCTIONAL STRATEGIES/ACTIVITIES:
Power point
SMART Goals

ANCHOR VOCABULARY:
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ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):
small group discussion
SMART goal worksheet

EVIDENCE OF MASTERY/Cut Score (Keystone Exam):

DIFFERENTIATED INSTRUCTION (Remediation/Extension) (Process, Product or Content)

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):
NASM Essentials of Personal fitness, 7th ED
NASM CPT study guide 2023-2024

RESOURCE SPECIFIC VOCABULARY:

Wallenpaupack Area School District Curriculum	
COURSE: Exercise Science	GRADE/S: 12
Topic: human movement science	TIMEFRAME:

COMMON CORE STANDARDS:
901, 1003, 1004, 1005

UNIT OBJECTIVES (SWBATS):
Summarize the scientific terminology that governs exercise and movement
Identify key biomechanical concepts that define how the neuromuscular system functions
Describe motor behavior and how the neuromuscular system adapts to changes in the environment

INSTRUCTIONAL STRATEGIES/ACTIVITIES:
Power point
Small and large group discussion
worksheet

ANCHOR VOCABULARY:
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ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):
movement videos
Vocabulary quizzes

EVIDENCE OF MASTERY/Cut Score (Keystone Exam):

DIFFERENTIATED INSTRUCTION (Remediation/Extension) (Process, Product or Content)

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):
NASM Essentials of Personal fitness, 7th ED
NASM CPT study guide 2023-2024

RESOURCE SPECIFIC VOCABULARY:

Wallenpaupack Area School District Curriculum

COURSE: Exercise Science	GRADE/S: 12
Topic: wellness and fitness assessments	TIMEFRAME:

COMMON CORE STANDARDS:
701, 702, 703, 704, 705, 707, 708

UNIT OBJECTIVES (SWBATS):
Explain the importance of fitness assessments surrounding clients' goals and optimal health
Collect and summarize information from clients using health screening assessments
Identify the steps for conducting physiological and body composition assessments appropriate to specific client types and goals
Identify the steps for conducting cardiorespiratory assessments and appropriate to specific client types and goals.

INSTRUCTIONAL STRATEGIES/ACTIVITIES:
Videos on testing
Perform testing on personal fitness class

ANCHOR VOCABULARY:
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ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):
create a fitness plan for a client

EVIDENCE OF MASTERY/Cut Score (Keystone Exam):

DIFFERENTIATED INSTRUCTION (Remediation/Extension) (Process, Product or Content)

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):
NASM Essentials of Personal fitness, 7th ED
NASM CPT study guide 2023-2024

RESOURCE SPECIFIC VOCABULARY:

Wallenpaupack Area School District Curriculum	
COURSE: Exercise Science	GRADE/S: 12
Topic: posture, movement, performance assessments	TIMEFRAME:

COMMON CORE STANDARDS:
701,702, 703, 704, 707

UNIT OBJECTIVES (SWBATS):
Identify the rationale for posture, movement, and performance assessments
Identify the steps for conducting posture, movement, and performance assessment
Interpret results from posture, movement, and performance assessments

INSTRUCTIONAL STRATEGIES/ACTIVITIES:
FMS videos
Assess classmates on FMS
Design program to help with imbalances

ANCHOR VOCABULARY:
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ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):

EVIDENCE OF MASTERY/Cut Score (Keystone Exam):

DIFFERENTIATED INSTRUCTION (Remediation/Extension) (Process, Product or Content)

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):
NASM Essentials of Personal fitness, 7th ED
NASM CPT study guide 2023-2024

RESOURCE SPECIFIC VOCABULARY:

Wallenpaupack Area School District Curriculum	
COURSE: Exercise Science	GRADE/S: 12
Topic: integrated training and OPT model	TIMEFRAME:

COMMON CORE STANDARDS:
700's

UNIT OBJECTIVES (SWBATS):
Summarize integrating training principles and their importance to maximize function
Identify types of exercise within an integrated training model

INSTRUCTIONAL STRATEGIES/ACTIVITIES:
Power point
videos

ANCHOR VOCABULARY:
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ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):

EVIDENCE OF MASTERY/Cut Score (Keystone Exam):

DIFFERENTIATED INSTRUCTION (Remediation/Extension) (Process, Product or Content)

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):
NASM Essentials of Personal fitness, 7th ED
NASM CPT study guide 2023-2024

RESOURCE SPECIFIC VOCABULARY:

Wallenpaupack Area School District Curriculum	
COURSE: Exercise Science	GRADE/S: 12
Topic: flexibility training	TIMEFRAME:

COMMON CORE STANDARDS:
701, 702, 705

UNIT OBJECTIVES (SWBATS):
Summarize the importance of flexibility training for clients with differing health and fitness goals
Explain the scientific rationale for flexibility training
Apply proper methods for effective stretching exercises in client exercise programs
Execute, instruct, and cue self-myofascial technique, active stretching, and dynamic stretching exercises using proper and effective methods.

INSTRUCTIONAL STRATEGIES/ACTIVITIES:
Class discussions
Research articles

ANCHOR VOCABULARY:
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ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):
Student led stretching program with explanations

EVIDENCE OF MASTERY/Cut Score (Keystone Exam):

DIFFERENTIATED INSTRUCTION (Remediation/Extension) (Process, Product or Content)

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):
NASM Essentials of Personal fitness, 7th ED
NASM CPT study guide 2023-2024

RESOURCE SPECIFIC VOCABULARY:

Wallenpaupack Area School District Curriculum	
COURSE: Exercise Science	GRADE/S: 12
Topic: cardiorespiratory training	TIMEFRAME:

COMMON CORE STANDARDS:
701, 702, 705, 706

UNIT OBJECTIVES (SWBATS):
Summarize the importance of Cardiorespiratory fitness training for different client types with differing health and fitness goals
Outline the general guidelines for cardiorespiratory fitness training
Explain stage training and its use to improve cardiorespiratory endurance

INSTRUCTIONAL STRATEGIES/ACTIVITIES:
Power point
videos

ANCHOR VOCABULARY:
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ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):
create a cardiorespiratory training video

EVIDENCE OF MASTERY/Cut Score (Keystone Exam):

DIFFERENTIATED INSTRUCTION (Remediation/Extension) (Process, Product or Content)

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):
NASM Essentials of Personal fitness, 7th ED
NASM CPT study guide 2023-2024

RESOURCE SPECIFIC VOCABULARY:

Wallenpaupack Area School District Curriculum	
COURSE: Exercise Science	GRADE/S: 12
Topic: Core training concepts	TIMEFRAME:
COMMON CORE STANDARDS: 701, 702, 703, 705, 707	
UNIT OBJECTIVES (SWBATS): Identify the physical benefits of core training Differentiate between core stabilization and movement systems Describe the mechanisms of the drawing-in maneuver and abdominal bracing Identify proper progressions of core training exercises	
INSTRUCTIONAL STRATEGIES/ACTIVITIES: Lecture Videos Class discussion	
ANCHOR VOCABULARY: •	
ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative): Create a core stability fitness program	
EVIDENCE OF MASTERY/Cut Score (Keystone Exam):	
DIFFERENTIATED INSTRUCTION (Remediation/Extension) (Process, Product or Content)	
RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.): NASM Essentials of Personal fitness, 7 th ED NASM CPT study guide 2023-2024	
RESOURCE SPECIFIC VOCABULARY:	

Wallenpaupack Area School District Curriculum	
COURSE: Exercise Science	GRADE/S: 12
Topic: balance training concepts	TIMEFRAME:

COMMON CORE STANDARDS:
701, 702, 703, 706

UNIT OBJECTIVES (SWBATS):
Describe the scientific rationale for balance training.
Explain balance training to a fitness client.
Summarize the benefits of balance training for various client types with differing health goals.
Identify proper progression sequences of balance training exercises.

INSTRUCTIONAL STRATEGIES/ACTIVITIES:
Class discussion
Chapter reading

ANCHOR VOCABULARY:
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ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):
create a balance program for a specific client

EVIDENCE OF MASTERY/Cut Score (Keystone Exam):

DIFFERENTIATED INSTRUCTION (Remediation/Extension) (Process, Product or Content)

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):
NASM Essentials of Personal fitness, 7th ED
NASM CPT study guide 2023-2024

RESOURCE SPECIFIC VOCABULARY:

Wallenpaupack Area School District Curriculum	
COURSE: Exercise Science	GRADE/S: 12
Topic: speed, agility, quickness training concepts	TIMEFRAME:

COMMON CORE STANDARDS:
701, 702, 703, 706

UNIT OBJECTIVES (SWBATS):
Describe speed, agility, and quickness training for a variety of populations
Discuss the importance of speed, agility, and quickness training for a variety of populations
Design a speed, agility, and quickness training program for clients at any level of training

INSTRUCTIONAL STRATEGIES/ACTIVITIES:

ANCHOR VOCABULARY:
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ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):
create a program to improve a clients speed, agility, and quickness

EVIDENCE OF MASTERY/Cut Score (Keystone Exam):

DIFFERENTIATED INSTRUCTION (Remediation/Extension) (Process, Product or Content)

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):
NASM Essentials of Personal fitness, 7th ED
NASM CPT study guide 2023-2024

RESOURCE SPECIFIC VOCABULARY:

Wallenpaupack Area School District Curriculum	
COURSE: Exercise Science	GRADE/S: 12
Topic: resistance training concepts	TIMEFRAME:

COMMON CORE STANDARDS:
701, 702, 703, 707, 705, 708

UNIT OBJECTIVES (SWBATS):
Summarize how resistance training affects the human body
Define resistance training systems
Identify the acute variables of training
Catergorize resistance exercises for different client types, goals, and adaptations

INSTRUCTIONAL STRATEGIES/ACTIVITIES:

ANCHOR VOCABULARY:
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ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):
create a resistance training program for a client

EVIDENCE OF MASTERY/Cut Score (Keystone Exam):

DIFFERENTIATED INSTRUCTION (Remediation/Extension) (Process, Product or Content)

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):
NASM Essentials of Personal fitness, 7th ED
NASM CPT study guide 2023-2024

RESOURCE SPECIFIC VOCABULARY:

Wallenpaupack Area School District Curriculum	
COURSE: Exercise Science	GRADE/S: 12
Topic: Optimum performance training model	TIMEFRAME:

COMMON CORE STANDARDS:
700's

UNIT OBJECTIVES (SWBATS):
Identify the differences between linear and undulating periodization
Identify the differences between macrocycles, mesocycles, and microcycles
Evaluate exercise protocols used within all five phases of the Optimum Performance Training model

INSTRUCTIONAL STRATEGIES/ACTIVITIES:

ANCHOR VOCABULARY:
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ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):
create an OPT program

EVIDENCE OF MASTERY/Cut Score (Keystone Exam):

DIFFERENTIATED INSTRUCTION (Remediation/Extension) (Process, Product or Content)

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):
NASM Essentials of Personal fitness, 7th ED
NASM CPT study guide 2023-2024

RESOURCE SPECIFIC VOCABULARY:

Wallenpaupack Area School District Curriculum	
COURSE: Exercise Science	GRADE/S: 12
Topic: chronic health conditions/special populations	TIMEFRAME:

COMMON CORE STANDARDS:
701, 702, 703, 802, 803, 804, 805

UNIT OBJECTIVES (SWBATS):
 Identify exercise needs and limitations for different populations
 Summarize the effects of chronic disease and health limitations and challenges on a client’s abilities to respond and adapt to exercise
 Differentiate exercise considerations for clients who have chronic disease, risk factors for chronic disease, and other physical or health challenges
 Identify considerations taken to accommodate special populations when exercising

INSTRUCTIONAL STRATEGIES/ACTIVITIES:

ANCHOR VOCABULARY:
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ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):
create a fitness program for a client with a chronic disease

EVIDENCE OF MASTERY/Cut Score (Keystone Exam):

DIFFERENTIATED INSTRUCTION (Remediation/Extension) (Process, Product or Content)

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):
 NASM Essentials of Personal fitness, 7th ED
 NASM CPT study guide 2023-2024

RESOURCE SPECIFIC VOCABULARY: