

Strength and Fitness for Fire Service

Course Design

2005-2006

Course Information

Organization	Eastern Arizona College
Division	Industrial Technology Education
Course Number	FSC 135
Title	Strength and Fitness for Fire Service
Credits	2
Developed by	Dr. Stephen Cullen
Lecture/Lab Ratio	Lecture=0/Lab=4
Transfer Status	Non Transferable
Activity Course	No
CIP Code	43.0203
Assessment Mode	Pre/Post Test (25 questions, 50 points)
Semester Taught	Offered Upon Request
GE Category	None
Separate Lab	No
Awareness Course	No
Intensive Writing Course	No

Prerequisites

None

Educational Value

This course is designed to prepare the fire science student for the Fire Science Program and pre-employment physical ability testing.

Description

The course offers the students the aspects of fitness for fire fighting. Students will learn how to develop strength, cardiovascular endurance and flexibility in a participatory learning environment. Course sessions will address aerobic and strength training, proper lifting, warm-up and flexibility techniques, training principles and elements of wellness. Proper handling of fire service equipment will be introduced.

Textbooks

None Required.

Supplies

Running Shoes

Acceptable work out attire

Competencies and Performance Standards

- 1. Participate in exercises in order to develop Abdominal (At least 65% of predetermined maximum)**

Learning objectives

What you will learn as you master the competency:

- Proper technique for sit-ups
- Proper technique for incline sit-up
- Demonstrate proper technique for ab crunches

Performance Standards

Learner will demonstrate competence by:

- o Performing 25 sit-ups
- o Performing 25 incline sit-ups
- o Performing 25 crunches
- o Progressing toward predetermined goal

Learn performance will be successful when:

- o Learner performs 25 sit-ups, incline sit-ups, and 25 crunches
- o Learner applies the proper technique, form, and pace

- 2. Participate in exercises in order to develop Calves (At least 65% of predetermined maximum)**

Learning objectives

What you will learn as you master the competency:

- Leg curl
- Standing calf raise
- Seated calf raise

Performance Standards

Learner will demonstrate competence by:

- o Performing 2 lifts that target the calves
- o Continuing to progress toward predetermined goal

Learner performance will be successful when:

- o Learner will apply proper technique, form, and pace

3. Participate in exercises in order to develop Quadriceps (At least 65% of predetermined maximum)

Learning objectives

What you will learn as you master the competency:

- a. Back squat
- b. Leg extensions
- c. Step-ups

Performance Standards

Learner will demonstrate competence by:

- o Performing 3 lifts that target each muscle group in the leg
- o Continuing to progress toward predetermined goal

Learner performance will be successful when:

- o Learner performs the back squat, leg extension and step-up
- o Learner applies the proper form, techniques, and pace

4. Participate in exercises in order to develop Hamstrings (At least 65% of predetermined maximum)

Learning objectives

What you will learn as you master the competency:

- a. Back squats
- b. Leg curl
- c. Hang cleans

Performance Standards

Learner will demonstrate competence by:

- o Performing 3 lifts that target each muscle group in the leg
- o Continue to progress to the predetermined goal

Learner performance will be successful when:

- o Learner performs the back squat, leg curl, and hang clean
- o Learner will apply the proper techniques, form, and pace

5. Participate in exercises in order to develop Forearms (At least 65% of predetermined maximum)

Learning objectives

What you will learn as you master the competency:

- a. Wrist curls
- b. Reverse wrist curls

Performance Standards

Learner will demonstrate competence by:

- o Learner will perform 3 lifts that target the forearm
- o Learner will progress toward predetermined goal

Learner performance will be successful when:

- o Learner performs wrist curls and reverse wrist curls
- o Learner applies proper form, technique, and pace.

6. Participate in exercises in order to develop Triceps (At least 65% of predetermined maximum)

Learning objectives

What you will learn as you master the competency:

- a. Bar dips
- b. Kick backs
- c. Triceps pushdown

Performance Standards

Learner will demonstrate competence by:

- o Demonstrating 3 lifts that target the triceps
- o Continuing to progress toward the predetermined goal.

Learner performance will be successful when:

- o Learner applies the proper technique, pace, and form
- o Learner describes the proper technique associated with the six lifts

7. Participate in exercises in order to develop Biceps (At least 65% of predetermined maximum)

Learning objectives

What you will learn as you master the competency:

- a. Seated dumbbell curl
- b. Preacher curl
- c. Straight bar arm curl

Performance Standards

Learner will demonstrate competence by:

- o Performing 3 lifts that target the biceps
- o Applying the proper techniques, pace, and form

Learner performance will be successful when:

- o Learner performs the seated dumbbell curl, preacher curl, and straight bar arm curl.
- o Learner will apply proper technique, form, and pace
- o Learner will describe the proper technique associated with the six lifts

8. Participate in exercises in order to develop Shoulders (At least 65% of predetermined maximum)

Learning objectives

What you will learn as you master the competency:

- a. Demonstrate military press
- b. Demonstrate front raises
- c. Demonstrate upright row

Performance Standards

Learner will demonstrate competence by:

- o Instructor observation and evaluation of learner performing the 3 lifts that target the shoulders
- o Learner progressing toward predetermined weight goal

Learner performance will be successful when:

- o Learner performs the military press, groin raises and upright row using proper technique
- o Learner will describe the proper procedure associated with 3 lifts

9. Participate in exercises in order to develop Back (At least 65% of predetermined maximum)

Learning objectives

What you will learn as you master the competency:

- a. The function of agility, coordination, balance, reaction time, speed, and power in skilled related fitness and conditioning program
- b. Set row
- c. Bent over row
- d. Lat pull-downs

Performance Standards

Learner will demonstrate competence by:

- o Instructor observation and evaluation of student performance of the 3 lifts that target the back
- o Learner demonstrating the proper technique and pace of the back exercises with 3 repetitions that target the back

Learner performance will be successful when:

- o Learner performs row, bend over row, and lat pull downs using the proper techniques
- o Learner will describe the proper procedure associated with the three lifts

10. Participate in exercises in order to develop Chest (At least 65% of predetermined maximum)

Learning objectives

What you will learn as you master the competency:

- a. Learner will attend workouts and progress toward predetermined goal
- b. Learner will demonstrate bench press
- c. Learner will demonstrate incline press

- d. Learner will demonstrate flat flies

Performance Standards

Learner will demonstrate competence by:

- o Learner remaining committed to attain the predetermined goal
- o Learner successfully using controlled movement during lifts and exercises and applies muscle specificity principle

Learner performance will be successful when:

- o Learner demonstrates proper technique and form while engaged in the exercises for development of the chest
- o Learner used controlled movement when performing lifts and exercises
- o Learner will complete 3 set of 12 repetitions using 65%-90% of the RM 4 times per week
- o Learner will complete the circuit training workout using 65%-90% of 1 RM 4 times per week
- o Learner applies the principle of muscle specificity

11. Participate in bench press (90% of predetermined maximum)

Learning objectives

What you will learn as you master the competency:

- a. Learner will attend and progress toward the predetermined weight lifting goal
- b. Learner will use proper pace and control

Performance Standards

Learner will demonstrate competence by:

- o Continuously working to attaining the predetermined goal for the beach press

Learner performance will be successful when:

- o Learner demonstrates proper form, pace and technique with bench pressing
- o Learner completes 3 sets of 5 repetitions
- o Learner regularly attends workouts

12. Participate in squats (90% of (predetermined maximum)

Learning objectives

What you will learn as you master the competency:

- a. learner will complete 3 sets of 5

Performance Standards

Learner will demonstrate competence by:

- o Attaining the predetermined weight for the squat lift
- o Applies controlled movement when performing lifts
- o Using the proper pace and technique

Learner performance will be successful when:

- o Learner uses the proper form and technique for the squat lift
- o Learner successfully complete 3 sets of 5
- o Learner regularly attends workouts

13. Participate in clean lift (90% of (predetermined maximum))

Learning objectives

What you will learn as you master the competency:

- a. Learner will apply the principles for muscle building and tone
- b. Learner will use controlled movement when performing their lifts
- c. Learner will demonstrate proper pace when lifting

Performance Standards

Learner will demonstrate competence by:

- o The number of visits and participation record of the learner
- o Accept the responsibility and commitment of moving toward the predetermined lifting goal for the clean lift

Learner performance will be successful when:

- o Learner demonstrates proper form/ techniques and attains the predetermined goal
- o Learner successfully completes 3 sets of 1
- o Learner regularly attends workouts

14. Participate in power lifts (90% of (predetermined maximum))

Learning objectives

What you will learn as you master the competency:

- a. Learner will apply the principles of specificity for adding muscle and muscle tone
- b. Learner will use controlled movement when performing their various lifts
- c. Learner will complete predetermined regimen for his/her work-out

Performance Standards

Learner will demonstrate competence by:

- o Accepting responsibility for increasing powerlift and remain committed to the predetermined lifting goal
- o Accepting the responsibility for understanding the importance of wellness relative to the fire fighting profession

Learner performance will be successful when:

- o Learner successfully complete the pre/post test
- o Learner demonstrates proper technique and form when engage in the powerlift
- o Learner successfully completes 2 sets of 1
- o Learner attains 90% of predetermined weight for each workout

Types of Instruction

Orientation and physical assessment

Grading Information

Grading Scale

A	90%-100%
B	80%-89%
C	70%-79%
D	60%-69%
F	Below 60%