



Australian Government

Department of Education, Employment and Workplace Relations

SISFFIT417A Undertake long term exercise programming

Release: 2

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Modification History

Not Applicable

Unit Descriptor

This unit describes the performance outcomes, knowledge and skills required to design, plan and program long term exercise for fitness industry clients.

Application of the Unit

This unit applies to exercise trainers who work in facilities that provide a range of exercise programs to general populations including older clients who present with no major health conditions. The unit is applicable to those employed in fitness environments such as fitness venues and those working autonomously in the fitness industry.

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Nil

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

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| <ol style="list-style-type: none"> 1. Use the principles and variables of programming that underlie exercise planning 2. Use a structured approach to exercise planning 3. Write the exercise plan for specific fitness adaptations | <ol style="list-style-type: none"> 1.1. Use the <i>principles of exercise</i> planning to develop long term <i>exercise plans</i> for <i>clients</i>. 1.2. Use clear and structured forms when writing exercise plans and exercise programs. 1.3. Consider total training volume when developing an exercise plan and relate training volume to other <i>program variables</i>. 1.4. Identify participants specific needs to be addressed by the long-term exercise program. 1.5. Develop objectives for the long-term program and each phase of the program, in consultation with the participant. 1.6. Identify the need for support personnel within the program. 2.1. Conduct a client induction and screening before commencing to develop an exercise plan. 2.2. Use the four <i>program phases</i> when developing session programs and relate to the clients specific needs. 2.3. Describe the physiological and <i>psychological benefits</i> of the preparation and recovery phase to clients. 2.4. Outline the various types of <i>conditioning</i> appropriate for their goals and fitness levels to clients. 2.5. Incorporate a competition or performance strategy into the program where applicable. 3.1. Use the programming principles of planning for specific fitness <i>adaptations</i> when writing fitness <i>exercise plans</i>. 3.2. Explain the relationship between the type of conditioning desired and the type of preparation |
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ELEMENT**PERFORMANCE CRITERIA**

- phase selected to clients.
- 3.3. Demonstrate an awareness of the clients needs, objectives and exercise likes and dislikes when writing exercise plans.
- 3.4. Select appropriate exercises and incorporate injury prevention strategies to meet the clients needs when writing the exercise plans.
- 3.5. Design an exercise plan format and structure that is appropriate to the client and the specific target adaptation.
- 3.6. Describe the *physiological changes* and anatomical changes that occur with regular participation in the specific program to clients.
4. Evaluate and modify existing exercise plans for fitness industry clients
- 4.1. Recognise the general conditions that suggest a client's exercise plan should be *evaluated*.
- 4.2. Describe the process by which clients are evaluated to the client.
- 4.3. Recognise the signs and symptoms of overtraining and utilise strategies for its prevention.
- 4.4. Analyse and incorporate client's exercise likes and dislikes into a modified exercise plan
- 4.5. Review client goals and incorporate changes to goals into the exercise plan.
- 4.6. Assess clients for relevant fitness level changes.
- 4.7. Discuss changes to the long term exercise plan with clients.
- 4.8. Write revised programs and provide instruction to clients.
5. Demonstrate and instruct the use of cardio-vascular equipment
- 5.1. Develop innovative cardiovascular fitness plans and exercise programs to meet a client's specific needs.
- 5.2. Demonstrate the functions on the display board of *cardiovascular equipment* are demonstrated to clients.
- 5.3. Utilise a variety of different electronic exercise equipment program functions for specific client needs.
- 5.4. Adjust the cardiovascular equipment to suit the needs of clients.
- 5.5. Instruct the client on the use of cardiovascular equipment.
6. Demonstrate and instruct the use of free
- 6.1. Develop innovative free weight fitness plans and exercise programs to meet a client's specific needs.

ELEMENT**PERFORMANCE CRITERIA**

weight equipment

- 6.2. Demonstrate a *variety of exercises* using free weight equipment.
- 6.3. Instruct the client on the use of free weight equipment.
- 6.4. Use a knowledge of the basic mechanics of action of *free weight equipment* to modify exercises for specific fitness outcomes or for safety.
- 6.5. Analyse the time that a client has been training with free-weights with respect to the exercises taught and adjust the technical difficulty of the exercises accordingly.

7. Demonstrate and instruct the use of innovative exercise equipment

- 7.1. Develop plans and exercise programs using non-traditional equipment to meet a client's specific needs.
- 7.2. Use *exercise equipment* with reference to manufacturer's guidelines.
- 7.3. Use a knowledge of the basic mechanics of action of exercise equipment to modify exercises for specific fitness outcomes or for safety.
- 7.4. Instruct exercises using exercise equipment to clients.

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

- interpersonal skills to enhance interaction with clients
- the ability to apply injury prevention strategies
- verbal, written and listening communication skills for understanding a client's specific exercise requirements
- technical expertise and experience in the specific fitness activity being planned for the client
- problem-solving skills to identify client problems and address these through appropriate intervention.

Required knowledge

- activity aims and client goal setting
- principles and variables of exercise planning
- exercise science, including anatomy, physiology, biomechanics and healthy eating principles, as applied to fitness activities
- manufacturer and exercise equipment specifications for use and techniques to check safe use
- signs and symptoms of harmful practices and over-training.

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of the following is essential:

- implement the principles and variables of training that underlie exercise planning
- interrelate the components of an exercise plan for specific adaptations
- write exercise plans for a variety of training conditions
- modify existing exercise plans for clients.

Context of and specific resources for assessment

Assessment must ensure access to:

- a real or simulated work environment
- a fitness venue with the appropriate facilities and equipment for the context of delivery such as
- a weights gym
- exercise to music room
- pool
- community fitness environment
- an outdoor environment such as a running track
- clients able to give information regarding progress in their fitness program
- human resources consistent with those outlined in the Assessment Guidelines.

Method of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:

- observation
- oral or written questioning to assess knowledge of healthy eating standards and guidelines
- portfolio demonstrating evidence of accurate body composition appraisals
- third-party reports from supervisors detailing work performance.

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Adaptations may include:

- aerobic endurance
 - energy system involvement
 - large muscle groups
 - involvement of aerobic responses such as:
 - substrate utilisation
 - heart rate responses
 - ventilation responses
- cardiovascular endurance
 - muscle group involvement
 - energy system
 - involvement of cardiovascular responses such as:
 - blood pressure
 - heart rate
 - vascular shunting
 - vasodilation
- hypertrophy
 - low volume and heavy load stimuli for fast twitch fibres
 - high volume and low load stimuli for slow twitch fibres
 - muscle tension
- local muscle endurance
 - number of sets
 - repetition maximum
 - recovery
 - exercises
- neuromuscular coordination
 - sets and repetitions
 - exercise type
 - exercise technique
 - safety considerations
 - skill foundation

- power
 - sets and repetitions
 - repetition maximum
 - recovery times
 - exercise techniques
- strength
 - sets and repetitions
 - repetition maximum
 - recovery times
 - exercise techniques
- stretching and flexibility
 - sets and repetitions
 - recovery times
 - exercise technique.

Exercise plans may include:

- changes to
 - movement
 - direction
 - range
 - lever length
 - complexity.
 - speed
- environment
 - stability of client
 - perceived risk
 - activity type
- intensity
 - resistance
 - repetitions
 - muscle involvement
- program type, such as
 - strength
 - muscular endurance
 - power
 - cardiovascular endurance
 - speed
 - flexibility
- sets and reps
- circuit
- matrix
- super sets

- plyometrics
 - pre-fatigue
 - interval.
- Clients*** may include:
- experienced or inexperienced
 - various ages
 - screened
 - active or inactive
 - pre-natal
 - post-natal
 - menopausal.
- Conditioning*** may include:
- speed
 - power
 - strength
 - flexibility
 - cardiovascular endurance
 - hypertrophy
 - muscle endurance
 - weight loss.
- Long term exercise plans*** may include:
- client details
 - current fitness level
 - client goals
 - targeted adaptations
 - anticipated rate of client adaptation
 - periodisation of multiple target adaptations
 - number and nature of specific session programs
 - equipment requirements
 - facility requirements
 - review dates.
- Evaluated*** may include:
- original aims and objectives
 - client satisfaction
 - suitability and safety of facilities and equipment.
- Physiological changes*** may include:
- cardiovascular changes
 - thermoregulation
 - energy system and substrate utilisation
 - pulmonary changes
 - nervous system changes.
- Principles of exercise*** may include:
- client goals
 - client physical capacity
 - planning elements
 - training threshold

- overload
- specificity
- reversibility
- progression
- genetic potential
- recovery rate
- individualisation
- motivational techniques
- performance goals
- predicted rate of adaptation.

Program phases may include:

- preparation phase
- mobility
- first preparation
- pre-stretch
- specific preparation
- conditioning phase
- apply the training stimulus
- recovery phase
- stretching
- healthy eating options
- massage
- soft or gentle exercise
- adaptation phase
- rest
- recovery
- positive physiological and anatomical adaptations.

Program variables may include:

- frequency
- intensity
- duration
- type
- progressive overload
- specificity
- individualisation
- reversibility
- recovery
- periodisation.

Psychological may include:

- mental imaging
- focusing
- level of self motivation
- development of motivational tools.

Cardiovascular equipment may

- bikes

include:

- treadmills
- elliptical trainers
- steppers
- rowing machines.

Free weight equipment may include:

- bars
- dumbbells
- collars
- barbells
- benches.

Variety of exercises may include:

- compound
- isolation
- body part or muscle specific
- equipment specific.

Exercise equipment may include:

- exercise balls
 - medicine balls
 - swiss balls
- bars
 - body bars
- steps
- bands
 - dyna bands
 - speed assisted bands
 - speed resisted bands
- specific muscle targets
 - abdominal assisters
 - rotator cuff
- plyometric training systems.

Unit Sector(s)

Fitness

Competency Field

Fitness