Australian Government

Department of Education, Employment and Workplace Relations

SISSSTC402A Develop strength and conditioning programs

Release: 2

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Modification History

Not Applicable

Unit Descriptor

This unit describes the performance outcomes, knowledge and skills required to develop, implement and evaluate a strength and conditioning program. It focuses on the skills needed to develop a program which meets the needs of individual athletes or groups of athletes according to their sport-specific needs or those undertaking fitness programs to achieve personal fitness goals.

Application of the Unit

This unit applies to coaches working with individuals or teams. It also applies to fitness instructors who provide a range of fitness programs and services to individuals or groups. The unit is applicable to those working with sporting groups, in fitness centres, gyms or autonomously in the fitness industry.

Licensing/Regulatory Information

No licensing, regulatory or certification requirements apply to this unit at the time of endorsement.

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.
1. Identify the needs and requirements of the athlete or team members.	1.1. Analyse the strength and conditioning ***needs and requirements*** of the activity or sport of the target individual or group. 1.2. Develop ***profiles*** for each individual or group member participating in the strength and conditioning program using appropriate ***assessment measures***. 1.3. Develop short, medium and long-term ***objectives*** for the strength and conditioning program through negotiation with ***athletes*** and ***support personnel***. 1.4. Identify the ***career phase*** of athlete and the ***training phase*** of the selected sport or activity to be addressed in the program.
2. Plan a strength and conditioning training program to meet identified needs.	2.1. Develop a strategy to meet the identified needs and requirements of the athlete or team. 2.2. Select the ***core lifts and exercises and techniques of strength and conditioning*** to address identified needs and requirements of the athlete according to ***organisational policies and procedures***. 2.3. Establish ***fixed points*** of the program and identify and document training phases within the training program. 2.4. Apply ***exercise selection and exercise order*** to maximise conditioning outcomes throughout the program. 2.5. Identify ***equipment*** and ***resource requirements*** for each session within the program. 2.6. Develop and document a program schedule to meet the identified needs, requirements and objectives of the athlete. 2.7. Include ***evaluation methods*** to monitor the training program prior to implementation.

ELEMENT	PERFORMANCE CRITERIA
3. Implement strength and conditioning training program.	3.1. Supervise strength and conditioning program. 3.2. Use ***strength and conditioning training methods*** to meet identified needs and requirements of athletes or team members. 3.3. Observe sessions to see that exercises are conducted in accord with rules and regulations and accepted ***best practice principles of strength and conditioning training***. 3.4. Ensure correct use of equipment during strength and conditioning session, according to organisational policies and procedures and manufacturer's instructions. 3.5. Establish ongoing liaison between ***other coaches and specialists*** where coaches and specialists work with the same athlete to ensure a consistent approach to the strength and conditioning program.
4. Monitor, evaluate and modify the strength and conditioning program.	4.1. Evaluate the program according to methods established and documented within the strength and conditioning program plan. 4.2. Monitor use of equipment according to exercise plan and relevant legislation and organisational policies and procedures. 4.3. Review each athlete's or athletes' training diary or diaries to monitor ongoing progress. 4.4. Use assessment measures to assess athlete's ongoing progress. 4.5. Seek and receive feedback from participating athletes and support personnel. 4.6. Implement modifications to the program, where relevant, to meet identified needs.

Required Skills and Knowledge

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

Required skills

- communication skills to:
  - liaise with other coaches and trainers
  - give and receive feedback from athletes
- problem-solving skills to select appropriate techniques and strategies for the program to meet the stated objectives
- planning and organising skills to schedule the strength and conditioning program
- technology skills to assess the fitness and condition of athletes and other participants
- literacy skills to:
  - document evaluation methods
  - record feedback
  - read and understand policies and procedures information.

Required knowledge

- the major body systems, bones, joints, muscles and their function to enable the selection, instruction and adjustment of appropriate exercises to meet the needs of athletes
- anatomical, physiological and biomechanical differences of athletes including age and sex
- physiological adaptation to strength and conditioning training
- current strength and conditioning training techniques
- exercise prescription and exercise order principles
- physical constraints that may affect planning for strength and conditioning program
- legislation organisational policies and procedures to enable the safe delivery of exercise programs including the safe use of equipment and a safe learning environment.

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:

- assesses athlete's or athletes' current training status and needs and applies knowledge of human anatomy and physiology to develop programs to meet stated objectives for strength and conditioning
- plans strength and conditioning classes that meet athlete expectations, comply with legislative and organisational requirements, and are of sufficient duration to allow the candidate to demonstrate the use of strength and conditioning techniques
- evaluates and modifies the training program according to feedback received and the results of evaluation procedures.

Context of and specific resources for assessment

Assessment must ensure development and implementation of multiple strength and conditioning programs to demonstrate competency and consistency of performance in the provision of core strength and conditioning techniques according to the specific needs of individuals, groups or sports.

Assessment must also ensure access to:

- an environment with appropriate facilities, equipment and materials such as free weight or hydraulic equipment
- a range of athletes with real or simulated strength and conditioning goals
- documentation such as athlete's performance history and manufacturer's specifications for equipment use.

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 of preparation and planning for a strength and conditioning program, including the assessment of athletes
- observation of interaction with a range of participants, including conveying information for safe participation in strength and conditioning sessions and monitoring the use of equipment

- oral or written questioning to assess knowledge of physiological, psychological and biomechanical changes that occur during strength and conditioning training
- third-party reports from a supervisor detailing work performance.

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

- SISSSTC301A Instruct strength and conditioning techniques
- SISXCAI405A Conduct individualised long term training programs.

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.

Needs and requirements may include:

- competition performance
- pre-adolescent
- mature aged
- disability
- reconditioning
- rehabilitation.

Profiles may include:

- physical
- psychological
- tactical
- technical
- leadership skills.

Assessment measures may include:

- discussion with trainees
- physical ability tests
- trials
- performances in familiar environment
- performances in unfamiliar environment
- field assessments of fitness components
- performance history.

Objectives may include:

- enjoyment
- competition or performance
- selection
- tapering
- peaking
- maintenance.

Athlete or Athletes may include:

- *experienced or inexperienced*
- female or male
- competitor in team or individual sports
- amateur or professional.

Support personnel may include:

- administrators
- coaches
- sports scientists
- sports medicine providers
- parents or guardians.

Career phase may include:	• novice • intermediate • advanced.
Training phase may include:	• macro-cycles • micro-cycles • meso-cycles • pre-season • in-season • post-season • four year Olympic cycle.
Core lifts and exercises may include:	• abdominal • roll outs • reverse crunch • side bends • prone and hold • back • biceps • calves and ankles • chest • forearms • hip or thigh • shoulders • triceps • power exercises • proprioception and neuromuscular coordination exercises.
Techniques of strength and conditioning may include:	• resistance training • aerobic endurance • anaerobic endurance • flexibility and stretching • elastic energy • abdominal • core stability.
Organisational policies and procedures may include:	• occupational health and safety • athlete assessment procedures • confidentiality of athlete information • emergency procedures • time constraints and scheduling requirements • use of venue • equal opportunity.
Fixed points may include:	• structure and subdivision of performance levels

	• availability of facilities • rules of the activity • rules of the competition or performance • intended peaks • selection dates and criteria • availability of support personnel.
Exercise selection may include:	• types of resistance training exercises • movement analysis of sport • athlete's exercise technique experience • available equipment and training time.
Exercise order may include:	• core followed by assisted exercises • pre-exhaustion method • alternated upper and lower body exercise • supersets and compound sets.
Equipment may include:	• cardiovascular equipment • free weight equipment • hydraulic equipment • innovative equipment • exercise balls • bars • steps • bands • plyometric training systems • resistance equipment • pool based equipment.
Resource requirements may include:	• ratio of coaches to athletes • ratio of equipment to athletes • access to first aid facilities • access to equipment • appropriate facilities.
Evaluation methods may include:	• fitness assessments • lab assessments • discussion with participants • training and competitive performances • training diaries.
Strength and conditioning training methods may include:	• ***work duration***, ***rest periods and frequency*** • ***periodisation*** • ***training load***, ***repetition and volume*** • rehabilitation and reconditioning • core stability.
Best practice principles of	• the sports coaches' or instructors' code of

strength and conditioning training may include:	conduct policy developed by the peak bodies responsible for the development of teaching and coaching • Australian Sports Commission Harassment-free Sport policy • Australian Sports Commission's drugs in sport policy • National Activity Organisation's regulations and guidelines.
Other coaches and or specialists may include:	• health professionals • physiologists • biomechanics • exercise scientists.

Unit Sector(s)

Sport

Competency Field

Strength and Conditioning