
Overview

This standard is about analysing, designing, performing and reviewing a strength and conditioning programme appropriate for, and tailored to, athletes of all abilities, ages and stages of maturational development.

Strength and conditioning coaches typically work without direct supervision but often as part of a multi-disciplinary support team.

The main outcomes of this standard are:

1. perform a needs analysis of the performance activity and athlete
2. design and agree a strength and conditioning programme
3. deliver, review and revise a strength and conditioning programme

You must include the core exercise and fitness knowledge and theoretical understanding as detailed in the document SkillsActive Exercise and Fitness Core Knowledge Requirements relevant to the job role.

This standard is for fitness instructors and personal trainers who will be working on the development of the athlete, focusing on what is needed to improve performance, such as strength, speed, endurance, mobility and movement competency.

Performance criteria

You must be able to: **Perform a needs analysis of the performance activity and athlete**

1. analyse the **demands** of the performance activity
2. identify and agree the **demands** of the performance with the **athlete**, and **support team**
3. analyse the interacting current **performance capabilities** of the **athlete** in relation to the performance activity
4. identify and agree the profile with the **athlete** and **support team**
5. identify and agree roles and responsibilities with the **athlete** and **support team**
6. adhere to **legal and organisational procedures** regarding data protection
7. evaluate performance **demands** and **athlete** capabilities
8. develop and agree immediate, short term and long term performance targets with the **athlete** and **support team**, informed by performance **demands** and **athlete** capabilities
9. develop and agree injury risk management targets
10. agree a strategy to evaluate and review change in performance capabilities facilitating programme adaptation
11. seek specialist advice where necessary

Design and agree a strength and conditioning programme

12. design a long term plan to achieve agreed **goals** taking into account **key periodisation and planning considerations** and the intended accumulation of adaptations to training
13. design a short to medium term plan to achieve **goals**, set in the context of the longer-term plan
14. plan training sessions and units taking into account **key periodisation and planning considerations**
15. agree the programme with the **athlete** to allow independent engagement
16. agree the programme with the **support team** to facilitate understanding and engagement

Deliver, review and revise a strength and conditioning programme

17. prepare facility and equipment provision for planned training session and units
18. adhere to guidelines relating to health and safety and to local facility operating procedures
19. assess, agree and review the **athlete's** state of readiness and motivation to take part in the planned session
20. conduct warm ups that prepare the **athlete** for planned session
21. oversee completion of planned training units within the session
22. observe the **athlete** and analyse **information** available on performance
23. provide feedback to facilitate improved performance and learning
24. modify training activity based on aims and objectives of training units within the session and **athlete's** status
25. record modifications and evaluate implications for the session and programme plan
26. support maintenance of **athlete's** engagement in the training unit and programme
27. select training partners and construct training groups to best facilitate session outcomes
28. implement agreed monitoring
29. evaluate changes in **athlete** status and programme efficacy, and present outcomes to the **athlete** and **support team**
30. agree modifications to performance targets in light of changes in status
31. make modifications to programme content in response to changes in **athlete** status, injury, or re-evaluation of ongoing programme efficacy
32. seek specialist advice where necessary

Knowledge and understanding

You need to know and understand:

Perform a needs analysis of the performance activity and athlete

1. needs analysis tools and techniques for analysing the **demands** of the performance activity and understanding how they interact
2. communication skills required for agreeing the **demands** of the performance activity with the athlete and **support team**
3. how to collect and analyse the current **performance capabilities** of the athlete in relation to the **demands** of the performance activity
4. the significance of **fundamental differentiators** between athletes
5. how to decide the optimum **testing and monitoring methods**
6. the methodology for designing a **testing protocol** that can be used to collect **information** about the athlete
7. the different roles and responsibilities that are required and how to agree them with the athlete and **support team**
8. where to access and how to interpret the **legal and organisational procedures** regarding data protection that need to be considered for the athlete
9. why it is important to base performance targets on your analysis of athlete's needs
10. how to develop, agree and record short, medium and long term performance and injury risk targets for the athlete, taking into account barriers and ensuring they link to the **training methods** and athlete needs analysis
11. how to develop a strategy to evaluate and review changes in the agreed **performance capabilities**
12. the limits of your knowledge and understanding, the skills and knowledge possessed by others in the **support team** and how to engage them

Design and agree a strength and conditioning programme

13. the **key periodisation and planning considerations** and the accumulation of adaptations to training
14. techniques used to design a structured and sequential strength and conditioning programme
15. features of a long term plan to achieve the agreed **goals**

16. features of a short to medium term plan, set in the context of the long term plan
17. techniques for designing and planning training sessions and units which take into account logistical factors
18. techniques of presenting a programme in a usable format for the athlete and **support team**
19. how to effectively modify the programme based on perceived programme efficacy and changes in circumstance
20. the types of **sport classification**
21. the **logistical planning** required to deliver a programme
22. the requirements for **competent movement**

Deliver, review and revise a strength and conditioning programme

23. the aims, content and rationale of the training plan from which a session is drawn, including the knowledge base utilised to design the programme
24. how to prepare the facility and select equipment for the planned training session
25. the health and safety guidelines and the facility's normal operating procedures and emergency action plans
26. the skills involved in assessing the athlete's state of readiness and motivation for the planned session
27. how to manage the delivery of the training unit to minimise risk of injury
28. evidence and guidelines relating to **session management variables**
29. the potential benefits of warm up activities and how to structure a warm up, specific to the planned session and the athlete
30. how to effectively observe, give feedback and evaluate and improve the performance of the athlete
31. ways of modifying the training activity based on the aims of the training unit and the performance and status of the athlete
32. how to record the performance of the athlete in training session outcomes
33. the implications of the training session outcomes and how to make required changes to the overall programme
34. techniques for providing effective demonstrations, explanations or instructions
35. techniques for managing and maintaining engagement of athletes, taking account of group and training partner dynamics, facility and equipment options and individual athlete motivations

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36. how to implement the agreed monitoring strategies
 37. how to evaluate the session outcomes, athlete status and overall programme efficacy and when to engage the athlete and **support team** in this evaluation
 38. the effect of modifications to the performance targets and the impact of these modifications
 39. how to evaluate and revise the programme and communicate with the athlete and **support team**
 40. strategy development to inform programme adaption

Scope/range related Demands to performance criteria

1. physiological
2. biomechanical
3. motor control
4. sports specific movement patterns/speeds
5. socio-psychological
6. injury and illness epidemiology
7. performance/competition parameters
8. national and international rules, regulations and legislation

Athlete

1. an individual or individuals within groups/teams, looking to make a performance improvement in a sport/activity
2. an individual or individuals within groups/teams, looking to make a performance improvement in a recreational sport/activity
3. an individual or individuals within groups/teams looking to return to play after injury, including appropriate progressions for performance

Support team

1. technical coach
2. physiotherapists and medics
3. psychologists
4. physiologists
5. biomechanists
6. performance analysts
7. nutritionists
8. lifestyle support specialists
9. athlete's social support network (e.g. parents)

Performance capabilities

1. physiological
2. biomechanical
3. movement competency
4. socio-psychological
5. injury and illness history
6. performance/competition and training history

Legal and organisational procedures (to cover a minimum of 4)

1. Health and Safety at Work Act
2. Control of Substances Hazardous to Health
3. Reporting of Injuries, Diseases and Dangerous Occurrences Regulations
4. Electricity at Work Regulations
5. First Aid Regulations
6. individual organisational policies and procedures

Goals

1. general health and fitness
2. physiological and structural
3. psychological and cognitive
4. performance and competitive

Key periodisation and planning considerations

1. competition structure
2. implications of concurrency of different training methods
3. implications of ongoing volume and intensity of training
4. the historical and current status of the athlete
5. research evidence and knowledge of athlete training responses
6. stimulus for adaptation provided by activity selected and dose delivered within training unit prescription
7. fatigue imposed risks from training activity

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8. time taken by training activity
 9. interaction of effects from chosen activities in short to medium term

Information

1. personal details and goals
2. medical history
3. training history
4. posture, mobility and stability
5. movement competence
5. performance data (testing and monitoring)
7. attitude and motivation to participate
8. barriers to participation
9. state of readiness

**Scope/range related
to knowledge and
understanding**

- Demands**
1. physiological
 2. biomechanical
 3. motor control
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Fundamental differentiators

1. age (chronological vs. biological)
2. training history (general training and specific training)
3. gender
4. disability status

Testing and monitoring methods

1. discussions, interviews and questionnaires
2. physical/fitness tests
3. collation of training data
4. observation

Testing protocol

1. strength
2. power
3. speed
4. acceleration
5. direction change
6. complex agility
7. aerobic capacity
8. anaerobic capacity
9. mobility
10. balance

Information

1. personal details and goals
2. medical history
3. training history
4. posture, mobility and stability
5. movement competence
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7. attitude and motivation to participate
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Legal and organisational procedures

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Training methods

1. resistance training
2. metabolic training
3. mobility/flexibility training
4. skill focused training
5. postural control and stability training
6. integrated methods

Key periodisation and planning considerations

1. competition structure
2. implications of concurrency of different training methods
3. implications of ongoing volume and intensity of training
4. the historical and current status of the athlete
5. research evidence and knowledge of athlete training responses
6. stimulus for adaptation provided by activity selected and dose delivered within training unit prescription
7. fatigue imposed risks from training activity
8. time taken by training activity
9. interaction of effects from chosen activities in short to medium

Goals

1. general health and fitness
2. physiological and structural
3. psychological and cognitive
4. performance and competitive

Sport classification

1. maximal sprint sport
2. maximal strength sport
3. intermittent-sprint sport
4. transitional-game sport
5. endurance sport
6. aerial sport
7. aquatic sport
8. weight-bearing sport
9. non-weight-bearing sport
10. weight category sport

Logistical planning

1. time for training
2. availability of equipment
3. availability of facilities
4. training partners

Competent movement

1. running (steady state, acceleration, sprinting)
2. change of direction skills

3. complex agility
4. basic gymnastic manoeuvres
5. jumping, landing and plyometrics
6. mobility (e.g. static or dynamic stretching)
7. resistance training
8. weightlifting

Session management variables

1. managing a training programme with variables
2. implementing a training programme with variables

Values

The following values underpin the Exercise and Fitness National Occupational Standards

Exercise Professionals should:

1. demonstrate and promote a responsible lifestyle and conduct, by actively discouraging the use of performance enhancing drugs, and any other illegal substance
2. maintain confidentiality
3. deal openly and in a transparent manner with participants; respecting their participants' needs at all times
4. seek to adopt the highest level of professional standards in all areas of their work and the development of their career

Behaviours

The following skills underpin the Exercise and Fitness National Occupational Standards

Exercise Professionals should:

1. systematically prepare for all activities ensuring the health, safety and welfare of their participants
2. ensure there is differentiation and inclusion that can enable participants with particular needs and of various abilities to participate in sessions and programmes. The needs of participants with a disability should be considered and, where possible, their needs met
3. implement ground rules for behaviour during the session
4. explain their role and responsibilities to participants
5. identify any barriers to participation
6. encourage participants to find a solution to their barriers
7. identify participants' readiness to participate
8. identify and agree strategies to prevent drop out or relapse
9. use instructing styles that match participants' needs
10. adapt their relationship with participants to meet their changing needs
11. listen to and ask the participants questions to check their understanding
12. identify what information they need to collect about their participants
13. collect information about their participants using approved methods
14. record the information in a way that will help with analysing it
15. use communication techniques and appropriate responses when dealing with conflict
16. recognise discriminatory behaviour and know the procedures to follow in case of any incidents

Skills

The following skills underpin the Exercise and Fitness National Occupational Standards

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Glossary

Goals

Can be long, medium or short term. The stated outcome of the physical activity session (individual or group) which will influence what participants will be working on during the session.

Logistical factors

Factors that affect the strength and conditions programme such as time constraints, equipment availability, athlete's performance calendar, facility and resources, and travel and accommodation.

Strength and conditioning

Physical and psychological development of athletes for elite sport performance. Helps athletes become faster, stronger, increases flexibility and physical endurance, so they can perform better and remain injury free.

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