

**EuropeActive**  
**EQF LEVEL 4**  
**'Strength and Conditioning Coaching'**  
***Lifelong Learning Standard***  
**May 2024**

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## I. Executive Summary

This document refers to the EuropeActive Sector Qualification Framework in Active Leisure. It is a description of essential knowledge, skills, responsibility and autonomy, written as Learning Outcomes, required to deliver safe and effective strength and conditioning coaching in the European Fitness and Physical Activity Sector.

Historically, strength and conditioning evolved out of the sphere of elite sports performance, and for many years was the preserve of this arena. However, more recently the potential impact of strength and conditioning across a much more diverse range of activities and client groups has become apparent. As a result, its influence has spread into this much broader and more varied sphere, and where strength and conditioning methodologies are now deployed across a far wider range of activities and by non-elite as well as elite performers. As a result, strength and conditioning methodologies are now increasingly common in an ever-increasing range of settings such as schools, military establishments, police forces, fire departments, performing arts etc. In the coming years this trend is likely to continue so that the demand for strength and conditioning coaches will further increase. Consequently, there will be an associated change in how strength and conditioning is delivered.

Whereas traditionally strength and conditioning was delivered by full time employees at elite sports organisations, this increased demand has resulted in the opportunity for a wider range of individuals to deliver strength and conditioning services as part of their wider training provision, delivering directly to individual clients or undertaking part time roles with organisations. This in turn necessitates the development of standards that outline the scope of practice for strength and conditioning coaching, along with a framework of core competencies required for effective practice. This is an important step forward in developing standards of practice across Europe and where this clearly defined skill set can facilitate the delivery of strength and conditioning across multiple settings.

This Strength and Conditioning Coaching Lifelong Learning Standard is purpose and outcome driven and aligned with the EuropeActive's main goal to get: **'More People, More Active, More Often'**.

### **TEG Members for the EuropeActive 'Strength and Conditioning Coaching' Lifelong Learning Standard 2022-2023**

- Prof. Ian Jeffreys, PhD, Emeritus Professor in Strength and Conditioning, UK (Chair)
- Julian Berriman, MA, PSC Director, EuropeActive, Belgium
- Daniela Fond, MA, Head of Perform Better Institute and Executive Director NSCA CG Germany
- Dr. Turker Biyikli, PhD, Associate Professor, Athletic House Performance Clinic Owner, Turkey
- Bartosz Bibrowicz, MSc, Athletic Performance Co-ordinator Legia Warszawa, Poland
- Bartosz Groffik, MSc, The Academy of Physical Education in Wrocław, Poland
- James Vernau, MSc, Technogym Global Training & Education Network Manager, UK
- Mirosław Babiarz, MSc, Head Strength Coach, Polish Rugby, Poland
- Rick Howard, PhD, Assistant Professor/Sports Performance Coordinator, Westchester University, USA
- Ashley Jones, MSc, Freelance High-Performance Coach, USA
- Loren Landow, MSc, Director of Football Performance, University of Notre Dame, USA

- Ron McKeefery, PhD, Special Assistant to the Head Coach, University of Alabama, USA
- Des Ryan, MSc, Director of Sport & Physical Wellbeing - University of Galway, Ireland

### **Experts who participated in the external consultation process in 2023**

- Prof. Anna Szumilewicz, PhD, GUPES - Gdansk University of Physical Education and Sport, Gdansk, Poland
- Dr. Silvano Zanuso, Technogym Scientific Research & Communication Manager | Technogym, Italy
- Graham Melstrand, EVP, Community Health and Wellness Services, American Council On Exercise, USA
- Espen Arntzen, Chief Executive Officer, Wellness Education and Technology, Norway
- George Xiros/GX (Owner Xagon Fitness), Greece
- Ben Pratt/BP (Independent Education Consultant), Ireland
- Steve Barrett, Matrix Fitness, Director of Global Group Education & Training, UK
- Klas Tallvid, Coordinator at Halsingland Education Association, Sweden
- Razan Ghazi, Fitness Master Trainer, Body explosive Power Academy, Saudi Arabia
- Lidia B. Alejo, PhD, Director of the Expert Course in Physical Exercise and Cancer, European University of Madrid, Spain
- Peter Wolfhagen, Research Director at Blackbox Research, Netherlands
- Antonio Villanueva, MSc, Teacher, Nutritionist, Personal Trainer, International Personal Training Academy, Spain
- Kelly McKinnon, Master Trainer, Corpus Studios BV, Belgium
- Dilip Heblé, CEO & Managing Director - Gāyo Fitness Academy and Research Center Private Limited, India
- John van Heel, Founder and Director, EFAA Training, Netherlands Bryce Hastings, MPhil |Research and Education Consultant, Les Mills, USA
- Naumman Mazicioğlu, General Director, Blue Vision Fitness Academy, Turkey
- Tamer Farag, Founder & CEO of FACTS Academy, Saudi Arabia
- Toni Brocal, Associate Founder, European Sport & Health Institute, Spain
- Gabriel Vasilescu Hnyatek, COO Worldclass Romania, Romania

## II. Description of the 'Strength and Conditioning Coaching' Lifelong Learning Standard

### Name of the Standard

Strength and Conditioning Coaching

### EQF Level

EQF Level 4

### Description of Outcomes

The holder of a 'Strength and Conditioning Coaching' Lifelong Learning Certificate can plan, implement, and evaluate physical preparation programmes for performance. Coaching in strength and conditioning employs processes that result in physical adaptation and the integration of fitness components into a programme which compliments other aspects of the client's development. The programmes will be specific to the individual and to the activity and will involve, though not exclusively, activities that enhance force capacities (mobility, strength and power) movement capacities, (co-ordination, speed, and agility) and endurance.

Given the applied nature of strength and conditioning coaching, emphasis throughout the education and assessment processes should be on the attainment and demonstration of practical competency.

### Specific Prerequisites

There are specific prerequisites for the 'Strength and Conditioning Coaching' Lifelong Learning Standard and practice:

1. EQF Level 4 Personal Trainer qualification or equivalent accredited certification or an EQF Level 5/6 qualification in sport and exercise science/physical education/sports coaching.
2. EQF Level 5 Exercise Specialist qualification or equivalent accredited certification is required as a minimum prerequisite if the exercise professional wants to deliver strength and conditioning programmes tailored for a particular clinical condition (e.g., for clients with diabetes, hypertension, overweight).
3. Documented working experience as an exercise professional is recommended as a prerequisite for entry onto an accredited certification aligned to the 'Strength and Conditioning Coaching' Lifelong Learning Standard.
4. The holder of an accredited certification aligned to the 'Strength and Conditioning Coaching' Lifelong Learning Standard should work with clients who don't have contraindications to physical activity.

### Essential Skills

Despite the ever-increasing number of contexts in which strength and conditioning takes place, the key skills required for effective practice are consistent. Regardless of context, effective Strength and Conditioning Coaching depends on the ability to design and deliver safe, client appropriate, engaging and effective interventions, based on the needs of the activity and the individual. These interventions should enhance the physical capacities

needed to achieve the specific objectives. The coach must also demonstrate the capacity to monitor the client's responses acutely and chronically, making appropriate adjustment as and where necessary.

The holder of an accredited certification aligned to the Strength and Conditioning Coaching Lifelong Learning Standard has professional skills in the following areas:

- The ability to assess the performance needs of the client in relation to the requirements of the activity and their current status.
- The ability to design and deliver specific interventions to directly enhance the performance of the client in relation to the goals identified.
- The ability to deploy effective coaching skills that facilitate the delivery of effective training interventions.
- The ability to monitor and track training interventions and make appropriate adaptations to optimise progress.

These skills represent the core competencies of strength and conditioning coaching and represent an entry point into the field. Consequently, they must not be seen as the endpoint in the process of professional development. All providers of strength and conditioning should look to undertake ongoing training, mentoring and supervised experience so that they can continue to improve their practice and to progress their careers in strength and conditioning. For individuals looking to gain full time employment as a strength and conditioning coach this development should involve the attainment of further professional credentials and qualifications.

In developing this Standard, it is important to note that strength and conditioning is essentially a subset of a wider field of sport science-based application. Importantly, it is vital that professionals delivering strength and conditioning coaching are aware of their core area of expertise and also areas where more specialised knowledge and expertise is provided by appropriately trained and qualified professionals. Consequently, this strength and conditioning coaching Standard is designed to reflect the distinct skills undertaken in strength and conditioning coaching, with care taken not to impinge upon the specialist skills of other practitioner groups. Holders of an accredited certification aligned to this Strength and Conditioning Coaching Lifelong Learning Standard are **not** endorsed to:

- Prescribe or conduct acute injury treatment and rehabilitation programmes, which are predominantly the tasks of physiotherapists or other medical professionals.
- Provide extensive exercise testing of athletes in laboratory settings, for clinical or research purposes, which are the tasks of exercise physiologists.
- Provide clinical exercise testing, prescription, or physical activity implementation for clients with medium to high-risk clinical conditions, without appropriate medical screening, which are the tasks of clinical exercise physiologists.
- Prescribe any kind of medication, which are the tasks of medical doctors.
- Prescribe specific nutritional programmes and/or supplements, which is the task of registered dietitians/nutritionists.
- Diagnose any psychological disorders or mental health conditions, which are the tasks of psychiatrists.
- Provide any kind of specific psychological counselling, which is the task of psychiatrists /psychologists.
- Diagnose contraindications to exercise, diseases, disabilities or other clinical conditions, which are the tasks of physiotherapists or medical doctors.

## The Learning Outcomes Units (Areas of Core Knowledge, Skills and Responsibility and Autonomy)

The 'Strength and Conditioning Coaching' Lifelong Learning Standard includes the following units of learning outcomes (areas of core knowledge, skills, responsibility and autonomy):

- Unit 1. Coaching theory and professional skills
- Unit 2. Training theory
- Unit 3. The theory and practice of force development
- Unit 4. The theory and practice of speed and agility ('gamespeed') development
- Unit 5. The theory and practice of endurance development
- Unit 6. Performance assessment and monitoring

### Unit 1: Coaching theory and professional skills

The quality of coaching will always represent one of the critical factors in the ultimate success of any training intervention. Strength and conditioning coaching requires the careful design and implementation of effective practices that support the learning and development of individuals and/or groups. This requires the integration of information from a range of disciplines along with the development of key professional skills such as communication, interpersonal skills, the ability to motivate, leadership and management, whilst at all times developing an environment that facilitates performance and learning. Coaching must be adapted to help clients learn, bringing to life a range of pedagogical approaches that can help clients develop and optimise their performance.

Learning outcomes - the learner:	Assessment criteria – the learner:
1.1 Understands the principles of skill development	1.1.1 Defines the key characteristics of human motor skills 1.1.2 Explains the principles of skill development
1.2 Understands how to structure sessions to develop skills for different clients	1.2.1 Identifies factors affecting skill development 1.2.2 Evaluates the advantages and disadvantages of different approaches to skill development 1.2.3 Evaluates the needs of different clients at different stages of skill development 1.2.4 Understands how to structure sessions to develop skills
1.3 Is able to structure training sessions to maximise learning and performance for individuals and groups	1.3.1 Designs and implements sessions that facilitate skill development
1.4 Understands how to coach clients/client groups	1.4.1 Outlines the nature of coaching 1.4.2 Explains how coaching impacts learning

	<p>1.4.3 Describes the principles of effective instruction</p> <p>1.4.4 Describes the principles of effective Feedback</p>
1.5 Understands how to motivate clients/client groups	<p>1.5.1 Outlines the nature of motivation</p> <p>1.5.2 Outlines the principles of motivation</p> <p>1.5.3 Explains what constitutes a performance environment</p>
1.6 Is able to create a supportive and effective coaching environment	<p>1.6.1 Instructs client/s effectively</p> <p>1.6.2 Provides effective feedback to client/s</p> <p>1.6.3 Provides effective support to client/s that develops their self-efficacy</p> <p>1.6.4 Demonstrates the ability to motivate client/client groups</p>
1.7 Understands how to build positive relationships	<p>1.7.1 Outlines the nature of positive relationships</p> <p>1.7.2 Outlines the principles of communication</p> <p>1.7.3 Outlines the principles of negotiation</p> <p>1.7.4 Describes what constitutes teamwork</p>
1.8 Is able to build effective relationships with different stakeholders	<p>1.8.1 Builds successful relationships with a range of clients</p> <p>1.8.2 Builds successful relationships with other key stakeholders</p> <p>1.8.3 Works successfully within a wider performance team where appropriate</p>
1.9 Understands ethical and professional behaviour for coaches	<p>1.9.1 Outlines key ethical considerations for coaches</p> <p>1.9.2 Describes professionalism in relation to coaching</p>
1.10 Is able to behave ethically and professionally	<p>1.10.1 Demonstrates ethical and professional behaviour in all situations</p>

## Unit 2: Training theory

This unit covers the underpinning principles that guide effective training, along with coverage of proven methods by which training can be structured across a range of timescales. This includes daily session structure, weekly (microcycle) structures, mesocycle structures and macrocycle structures, up to and including whole career considerations. Study of the key principles underpinning effective training is designed to ensure that training interventions can elicit optimal adaptation through the balancing of stimulus and recovery.



Learning outcomes - the learner:	Assessment criteria – the learner:
2.1 Understands the principles of training	2.1.1 Defines the principles: <ul style="list-style-type: none"> <li>• General Adaptation Syndrome (GAS)</li> <li>• The fitness fatigue paradigm</li> <li>• Specificity</li> <li>• Progressive Overload</li> <li>• Reversibility</li> <li>• Rest and recuperation</li> <li>• Consistency</li> <li>• Accommodation</li> <li>• Individual differences</li> </ul>
2.2 Is able to apply the principles of training to a range of training scenarios	2.2.1 Designs training interventions for different scenarios 2.2.2 Applies the training principles to the training interventions
2.3 Understands how to structure sessions for effective training for individuals and groups	2.3.1 Explains the importance of the following in structuring effective sessions: <ul style="list-style-type: none"> <li>• Client objectives</li> <li>• Appropriate exercises</li> <li>• Appropriate training parameters (sets, reps, tempo etc )</li> <li>• Order of exercises</li> <li>• Work: rest ratios</li> <li>• RAMP warm-up</li> <li>• Session timeline</li> <li>• Effective cooldown</li> <li>• Recovery modalities</li> </ul>
2.4 Understands how to design and implement periodised / developmental training programmes for a range of individuals/groups	2.4.1 Explains the concept of periodisation 2.4.2 Explains the principles of adaptation: delayed transformation and delayed transmutation 2.4.3 Describes strategic and agile planning 2.4.4 Explains the potential application of a range of periodisation models: (e.g., conjugated, block, traditional, non-linear, undulating)
2.5 Is able to design periodised / developmental training programmes for a range of individuals/groups	2.5.1 Produces training programmes that effectively incorporate the following in their structure: units, sessions, micro cycles, mesocycles, phases, periods, macrocycles 2.5.2 Produces training programmes that utilise appropriate structures that facilitate adaptation 2.5.3 Produces training programmes that incorporate effective recovery modalities, where appropriate

<p>2.6 Understands how to monitor and adapt training programmes</p>	<p>2.6.1 Explains the aims of monitoring client responses to programmes</p> <p>2.6.2 Explains the principles of effective monitoring</p> <p>2.6.3 Describes the methods and measures of monitoring, including:</p> <ul style="list-style-type: none"> <li>• formal and informal</li> <li>• qualitative and quantitative</li> <li>• lead and lag</li> </ul> <p>2.6.4 Explains how to adapt training programmes in response to information gained</p>
<p>2.7 Is able to monitor and adapt training programmes</p>	<p>2.7.1 Monitors client responses to training programmes</p> <p>2.7.2 Adapts training programmes in response to client responses</p>

### Unit 3: The theory and practice of force development

The ability to devise and implement programmes of training that enhance force capacities is a cornerstone of effective strength and conditioning. Strength and conditioning coaching must include an understanding of how force is generated, the key characteristics of force, and the neuromuscular and biomechanical factors that affect its application. Similarly, an understanding of how the body adapts to different modes and methods of resistance training develops the capacity to select appropriate methodologies to elicit specific adaptations. Those delivering strength and conditioning coaching must demonstrate effective performance across a range of movement patterns along with the ability to develop and enhance performance in different individuals or groups.

Learning outcomes - the learner:	Assessment criteria – the learner:
<p>3.1 Understands the nature of force expression and performance</p>	<p>3.1.1 Identifies the nature of force expression required for performance in a range of activities and the factors that impact this expression</p>
<p>3.2 Understands how to assess athletes' force capacity</p>	<p>3.2.1 Outlines the principles of effective testing</p> <p>3.2.2 Outlines different measures of force capacity</p> <p>3.2.3 Explains the advantages and disadvantages of different testing protocols</p>
<p>3.3 Is able to evaluate the specific developmental needs of an individual/ group in relation to the chosen activity and their current capacities</p>	<p>3.3.1 Assesses the force capacities of an individual/group</p> <p>3.3.2 Determines the force requirements of the activity</p> <p>3.3.3 Evaluates the needs of the individual/group in relation to the activity and their individual status</p>

<p>3.4 Understands the adaptations required to enhance performance and the limits to force development</p>	<p>3.4.1 Explains the required adaptations to training and the limits to force development, in relation to the following body systems:</p> <ul style="list-style-type: none"> <li>• neuromuscular</li> <li>• hormonal</li> <li>• musculoskeletal</li> </ul>
<p>3.5 Understands the need to evaluate performance in key movement patterns</p>	<p>3.5.1 Explains why competency in key movement patterns and appropriate levels of mobility are required before load is added</p>
<p>3.6 Is able to evaluate performance in key movement patterns</p>	<p>3.6.1 Demonstrates key movement patterns to an individual/group</p> <p>3.6.2 Observes an individual/group performing key movement patterns</p> <p>3.6.3 Determines how to develop movement competency and mobility of individual/s</p> <p>3.6.4 Evaluates client/s' performance in the following movement patterns:</p> <ul style="list-style-type: none"> <li>• triple extension patterns</li> <li>• knee dominant patterns</li> <li>• hip dominant patterns</li> <li>• push patterns</li> <li>• pull patterns</li> <li>• brace patterns</li> <li>• rotational patterns</li> <li>• plyometric patterns</li> </ul>
<p>3.7 Understands how to select appropriate activities to elicit specific adaptations</p>	<p>3.7.1 Lists the advantages and disadvantages of different modes and methods of resistance training</p> <p>3.7.2 Describes adaptations to different modes of training</p> <p>3.7.3 Describes key principles of resistance training application</p> <p>3.7.4 Describes key variables in resistance training application</p> <p>3.7.5 Explains how to screen individuals for movement ability</p> <p>3.7.6 Explains how to design a programme that is developmental/progressive</p> <p>3.7.7 Explains how to design a programme that facilitates performance</p> <p>3.7.8 Explains how to design a programme in a range of target groups.</p>
<p>3.8 Is able to design effective force development training programmes for individuals and groups</p>	<p>3.8.1 Produces training programmes that are developmental/progressive</p> <p>3.8.2 Produces training programmes that are appropriate for the targeted adaptations</p>

3.9 Understands how to deliver force development training programmes effectively for individuals and groups	3.9.1 Describes coaching methods, including instruction, observation, evaluation, feedback and encouragement
3.10 Is able to deliver force development training programmes for individuals and groups	3.10.1 Effectively demonstrates exercises in the following movement pattern groups: <ul style="list-style-type: none"> <li>• triple extension patterns</li> <li>• knee dominant patterns</li> <li>• hip dominant patterns</li> <li>• push patterns</li> <li>• pull patterns</li> <li>• brace patterns</li> <li>• rotational patterns</li> <li>• plyometric patterns</li> </ul> 3.10.2 Effectively coaches the movements above 3.10.3 Effectively corrects the movements above 3.10.4 Offers alternative exercises for different movement patterns 3.10.5 Uses an effective (RAMP) warm-up 3.10.6 Provides effective feedback to individual/s 3.10.7 Progresses/regresses exercises as required
3.11 Understands how to monitor and evaluate force development training programmes for individuals and groups	3.11.1 Explains how to monitor force development programmes acutely 3.11.2 Explains how to monitor force development programmes longitudinally
3.12 Is able to monitor and evaluate force development training programmes for individuals and groups	3.12.1 Records key factors related to sessions 3.12.2 Monitors and tracks performance 3.12.3 Adapts training accordingly

#### **Unit 4: The theory and practice of speed and agility ('gamespeed') development**

Effective movement is a core capacity in many sports and activities and these movement capacities are often grouped under the umbrella term speed and agility and often require effective coordinative capabilities. This unit is designed to ensure that the strength and conditioning coach is able to effectively identify the key movement components of different activities and how these relate to performance ('gamespeed'). Practical competencies relate to the ability to demonstrate effective coaching performance across a range of movement patterns, along with the ability to develop and enhance performance in a range of individuals and groups.

Learning outcomes - the learner:	Assessment criteria – the learner:
4.1 Understands the nature of speed and agility expression and performance	4.1.1 Outlines the nature of speed and agility expression 4.1.2 Explains the reverse engineering of specific speed and agility applications to ensure contextual relevance ('gamespeed')
4.2 Understands how to assess athletes' speed and agility for individuals and group	4.2.1 Outlines the principles of effective speed and agility testing 4.2.2 Outlines different methods of testing speed and agility 4.2.3 Explains the advantages and disadvantages of different speed and agility testing protocols
4.3 Is able to evaluate the specific speed and agility developmental needs of an individual/group in relation to the chosen activity	4.3.1 Assesses the speed and agility of an individual/group 4.3.2 Uses quantitative and qualitative analysis to interpret results 4.3.3 Determines the speed and agility requirements for the activity 4.3.4 Evaluates the speed and agility needs of the individual/group in relation to the activity
4.4 Understands the adaptations required to enhance speed and agility performance and the limits to speed and agility development	4.4.1 Explains technical and physical limits to linear speed development 4.4.2 Explains limits to agility development, including: <ul style="list-style-type: none"> <li>• environmental</li> <li>• task</li> <li>• organismic (perceptual, cognitive, physical, motor control)</li> </ul> 4.4.3 Outlines adaptations to speed training 4.4.4 Outlines adaptations to agility/Gamespeed training, including: <ul style="list-style-type: none"> <li>• neuromuscular</li> <li>• perceptual</li> <li>• cognitive</li> <li>• motor control</li> </ul>
4.5 Understands how to select appropriate activities to elicit specific speed and agility adaptations	4.5.1 Lists the advantages and disadvantages of different modes of speed and agility training 4.5.2 Outlines different approaches to skill development 4.5.3 Explains how to design a speed and agility development programme that is developmental/progressive

	4.5.4 Explains how to design a speed and agility development programme that facilitates performance
4.6 Is able to design effective speed and agility development training programmes for individuals and groups	<p>4.6.1 Produces speed and agility training programmes that are developmental/progressive</p> <p>4.6.2 Produces speed and agility training programmes that are appropriate for the targeted adaptations</p> <p>4.6.3 Is able to develop all of the movements of the target movement classification</p>
4.7 Understands how to deliver speed and agility development training programmes effectively for individuals and groups	4.7.1 Describes speed and agility coaching methods, including instruction, observation, evaluation, feedback and correction strategies, encouragement
4.8 Is able to deliver speed and agility training programmes for individuals and groups	<p>4.8.1 Effectively demonstrates the chosen speed and agility exercises</p> <p>4.8.2 Effectively coaches the speed and agility exercises</p> <p>4.8.3 Effectively corrects the speed and agility exercises</p> <p>4.8.4 Offers alternatives for different speed and agility exercises</p> <p>4.8.5 Uses an effective (RAMP) warm-up</p> <p>4.8.6 Provides effective feedback to client/s</p> <p>4.8.7 Progresses/regresses speed and agility exercises as required</p>
4.9 Understands how to monitor and evaluate speed and agility training programmes	4.9.1 Explains how to monitor speed and agility programmes acutely
4.10 Is able to monitor and evaluate speed and agility training programmes	<p>4.10.1 Records key factors related to speed and agility sessions</p> <p>4.10.2 Monitors and tracks speed and agility performance</p> <p>4.10.3 Adapts speed and agility training accordingly</p>

## Unit 5: The theory and practice of endurance development

Effective performance in many sports and activities requires the ability to sustain or repeat performance. Consequently, a key role in strength and conditioning coaching is to develop appropriate levels of specific endurance to facilitate this repeated or sustained performance. This unit looks at the specific nature of endurance performance along with an identification of the constraints to performance across a range of activities. It will facilitate an understanding of how the body adapts to a range of training methodologies and how to structure and deliver these to facilitate specific adaptation. Practical competencies focus on how effective sessions and programmes are designed, delivered, monitored and adapted.

Learning outcomes - the learner:	Assessment criteria – the learner:
5.1 Understands the nature of endurance expression and performance	5.1.1 Identifies the endurance-related factors influencing performance, including: <ul style="list-style-type: none"> <li>• mode of activity and environment in which it takes place</li> <li>• type of activity – continuous, dispersed, intermittent</li> <li>• intensity of activity</li> <li>• duration of activity</li> <li>• work: rest ratio</li> <li>• type of rest</li> </ul>
5.2 Understands how to assess clients' endurance capacity	5.2.1 Outlines the principles of effective endurance testing 5.2.2 Outlines different measures of endurance capacity 5.2.3 Explains the advantages and disadvantages of different endurance testing protocols
5.3 Is able to evaluate the specific endurance-related developmental needs of an individual/group in relation to the chosen activity	5.3.1 Determines the endurance requirements for the activity 5.3.2 Assesses the endurance capacity of an individual/group 5.3.3 Evaluates the endurance needs of the individual/group in relation to the activity
5.4 Understands the adaptations required to enhance performance and the limits to endurance development	5.4.1 Outlines different types of endurance and the related critical factors for performance 5.4.2 Explains the required adaptations to training and the limits to endurance development, in relation to the following body systems: <ul style="list-style-type: none"> <li>• cardio-respiratory</li> <li>• metabolic</li> </ul>
5.5 Understands how to select appropriate activities to elicit specific endurance-related adaptations	5.5.1 Lists the advantages and disadvantages of different modes and methods of endurance training, such as continuous versus interval training. 5.5.2 Describes key variables in endurance training application (intensity, volume, frequency, session distribution, sequencing, recovery etc.) 5.5.3 Describes adaptations to different modes and methods of endurance training and how these impact on performance 5.5.4 Explains how to design an endurance programme that is developmental /progressive

5.6 Is able to design effective endurance training programmes for individuals and groups	5.6.1 Produces endurance training programmes that are developmental/ progressive 5.6.2 Produces endurance training programmes that are appropriate for the targeted adaptations and for the targeted population
5.7 Understands how to deliver endurance training programmes effectively for individuals and groups	5.7.1 Describes endurance development coaching methods, including instruction, observation, evaluation, feedback and encouragement
5.8 Is able to deliver endurance training programmes for individuals and groups	5.8.1 Effectively coaches the endurance exercises 5.8.2 Effectively corrects the endurance 5.8.3 Offers alternatives for different endurance exercises 5.8.4 Uses an effective (RAMP) warm-up 5.8.5 Provides effective feedback to client/s 5.8.6 Progresses/regresses endurance exercises as required
5.9 Understands how to monitor and evaluate endurance training programmes	5.9.1 Explains how to monitor endurance programmes acutely
5.10 Is able to monitor and evaluate endurance training programmes	5.10.1 Records key factors related to endurance sessions 5.10.2 Monitors and tracks endurance performance 5.10.3 Adapts endurance training accordingly

### Unit 6: Performance assessment and monitoring

Designing effective training interventions requires the ability to effectively identify the rate limiting factors for an activity, along with the ability to assess a client against these factors. This unit covers the principles underpinning effective testing, assessment and monitoring, utilising a range of means and methods both quantitative and qualitative. The ability to select and carry out valid and reliable methodologies that are contextually relevant will be developed, along with the ability to utilise any information and/or data generated to make effective training decisions.

Learning outcomes - the learner:	Assessment criteria – the learner:
6.1 Understands how to evaluate the key performance needs for a sport/activity	6.1.1 Outlines processes to determine sport/activity needs, including reverse engineering 6.1.2 Describes the kinetic (force) variables of different sports/activities



	6.1.3 Describes the kinematic (movement) variables of different sports/activities 6.1.4 Describes the metabolic variables of different sports/activities
6.2 Is able to evaluate the key performance needs for a sport/activity	6.2.1 Evaluates the key performance needs for a sport/activity, including the following variables: <ul style="list-style-type: none"> <li>• kinetic (force)</li> <li>• kinematic (movement)</li> <li>• metabolic</li> </ul>
6.3 Understands how to screen clients prior to participation in exercise	6.3.1 Outlines methods to screen clients 6.3.2 Outlines contraindications to participation in different types of exercise 6.3.3 Identifies potential risks of different types of exercise 6.3.4 Understands the scope of practice for the Strength and Conditioning Coach 6.3.5 Outlines the process for appropriate referral to a specialist practitioner
6.4 Is able to screen clients prior to participation in exercise	6.4.1 Identifies any contraindications to participation for a client 6.4.2 Outlines any potential risks of specific exercise for a client 6.4.3 Refers a client to the appropriate professional, if required 6.4.4 Records the outcomes of screening
6.5 Understands how to choose appropriate tests and monitoring procedures to assess and monitor the capacity of clients for exercise	6.5.1 Explains the difference between quantitative versus qualitative testing 6.5.2 Explains the following in terms of testing/monitoring: <ul style="list-style-type: none"> <li>• validity</li> <li>• reliability</li> <li>• contextual relevance</li> </ul> 6.5.3 Outlines the advantages and disadvantages of different testing/monitoring protocols 6.5.4 Identifies tests/monitoring procedures for different performance aims, including: <ul style="list-style-type: none"> <li>• general health and wellbeing</li> <li>• stature</li> <li>• force capacity</li> <li>• speed and agility capacity</li> <li>• endurance capacity</li> <li>• training readiness</li> </ul> 6.5.5 Identifies appropriate protocols for: <ul style="list-style-type: none"> <li>• pre-testing</li> <li>• setting up the environment</li> <li>• testing</li> <li>• recording</li> </ul>

<p>6.6 Is able to assess/test/monitor clients appropriately</p>	<p>6.6.1 Follows pre-test protocols          6.6.2 Creates a safe and appropriate environment, in line with protocols          6.6.3 Carries out assessments/tests that are valid for client/s and their performance aims          6.6.4 Carries out assessments/tests that are reliable for client/s and their performance aims          6.6.5 Carries out assessments/tests that are appropriate for client/s and their performance aims          6.6.6 Carries out assessments/tests in line with protocols          6.6.7 Records testing, in line with protocols</p>
<p>6.7 Understands how to analyse and use appropriate information</p>	<p>6.7.1 Outlines the principles of effective data/information analysis          6.7.2 Outlines the effective use of norm-referenced data          6.7.3 Explains the principles of:         <ul style="list-style-type: none"> <li>• individual information analysis</li> <li>• group information analysis</li> </ul>         6.7.4 Explains appropriate statistical analysis tools to generate information          6.7.5 Explains how to use information gathered to inform decision-making for programme design</p>
<p>6.8 Is able to analyse and record test results</p>	<p>6.8.1 Analyses the data/information gathered from testing/monitoring, in a way that is appropriate and objective          6.8.2 Records the status of the client/s in relation to the target activity/sport</p>
<p>6.9 Understands how to report and store data/information</p>	<p>6.9.1 Outlines the principles of effective data/information reporting          6.9.2 Outlines the principles of effective data/information interpretation          6.9.3 Outlines methods of data/information representation and reporting          6.9.4 Explains ethical considerations of data/information recording, reporting, sharing and storage</p>
<p>6.10 Is able to report and store data/information</p>	<p>6.10.1 Reports data/information gathered in an effective manner for the intended recipient.          6.10.2 Reports data/information gathered in an ethical manner          6.10.3 Reports data/information in a way that can be used to inform decision-making</p>

	<p>6.10.4 Reports data/information in a way that can be used to provide effective feedback to the client/s</p> <p>6.10.5 Reports data/information in a way that can be used to provide effective feedback to other key stakeholders</p> <p>6.10.6 Stores data/information gathered in an ethical manner</p>
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### III. Recommended methods of learning outcomes assessment

To obtain an accredited certification aligned to the ‘Strength and Conditioning Coaching’ Lifelong Learning Standard, the learner must confirm the achievement of all learning outcomes defined in this document. Given the practical focus of strength and conditioning coaching, the preferred form of assessment and evidence is always from applied practice, where the candidate is able to consistently demonstrate the competencies identified in each unit. As a result, the use of case studies of applied practice combined with in situ assessments of direct practice (utilising both direct assessment and video-based assessment) will always be the preferred methods of assessment. Additional methods can then be used to assess underpinning knowledge and specific competencies. Below are examples of assessment methods for individual learning outcomes. The training providers do not have to limit themselves to these methods. However, their selection must be logical, e.g., the skills to conduct sessions cannot be confirmed through a theoretical test only.

#### Recommended assessment methods:

1. To assess the learner’s knowledge – various forms of theoretical tests and applied scenarios can be utilised, including descriptive tasks and multiple-choice questions.
2. To assess the learner’s skills to plan and adapt physical preparation programmes for performance, case study evidence from applied practice, supported by additional questioning and supporting material, is the preferred method. This can be supplemented by additional written or practical tasks where the independent preparation of a strength and conditioning programme/session along with proposed and actual modifications can be assessed.
3. To assess the learner’s ability to implement strength and conditioning sessions, direct or video assessment in real life conditions is the preferred method. This can be supplemented by simulated scenarios as needed, where the preparation and delivery of strength and conditioning exercise sessions can be assessed. Throughout, the ability to communicate with a client, provide them with pertinent information focused on their needs and the ability to deliver effective coaching can be evaluated.

Observation in real life or simulated conditions can take place live or be documented through video material. Observation will ideally be supplemented by an interview with the assessor to ensure competency in the associated learning outcomes.

Strength and Conditioning Coaching			
Unit	Learning outcome	Assessment criteria	Recommended methods of learning outcome assessment
1. Coaching theory and professional skills	1.1, 1.2, 1.4, 1.5, 1.7, 1.9	All	Theory test or written task/s
	1.3	All	Case study/Written task
	1.6, 1.8, 1.10	All	Practical assessments/tasks
2. Training theory	2.1, 2.3, 2.4, 2.6	All	Theory test or written task/s
	2.2, 2.5, 2.7	All	Case study, written task
3. The theory and practice of force development	3.1, 3.2	All	Theory test or written task/s
	3.3	3.3.1	Practical assessment/task
	3.3	3.3.2, 3.3.3	Case study, Written task
	3.4, 3.5, 3.7, 3.9, 3.11	All	Theory test or written task/s
	3.6	3.6.1, 3.6.2	Practical assessment/task
	3.6	3.6.3, 3.6.4	Case study, Practical assessment, written task
	3.8, 3.12	All	Case study, Written task
	3.10	All	Practical assessment/task
4. The theory and practice of speed and agility ('gamespeed') development	4.1, 4.2, 4.4, 4.5, 4.7, 4.9	All	Theory test or written task/s
	4.3	4.3.1	Practical assessment/task
	4.3	4.3.2-4.3.4	Case study, Written task
	4.6, 4.10	All	Case study, Written task
	4.8	All	Practical assessment/task
5. The theory and practice of endurance development	5.1, 5.2, 5.4, 5.5, 5.7, 5.9	All	Theory test or written task/s
	5.3	5.3.1	Case study, written task

	5.3	5.3.2-5.3.3	Case study, Written task
	5.6, 5.10	All	Case study, Written task
	5.8	All	Practical assessment/task
6. Performance assessment and monitoring	6.1, 6.3, 6.5, 6.7, 6.9	All	Theory test or written task/s
	6.2, 6.8, 6.10	All	Case studies, Written tasks
	6.4	All	Case study, Practical assessment/task and/or written task/s
	6.6	6.6.1-6.6.6	Practical assessment/task
	6.6	6.6.7	Case study/Written task

## IV. The number of educational credits (ECVET and ECTS) and recommended learning workload

We strongly emphasise that the learning output of education (learning outcomes), not the education process itself is the most important for a learner. Consequently, the emphasis throughout the learning process is the development of practical experience. Consequently, there is likely to be a variation in the development needs of different individuals as they navigate the learning process, with each individual coming into the process with differing starting points in relation to practical experience. As a result, a single recommended time duration for any course is not recommended as these individual differences will directly impact upon the time course required for individuals to address the required learning outcomes. However, it is recommended that qualifications are designed over an extended period of time (for example 12 months) to allow individuals to develop the practical experience necessary to demonstrate competency across all learning outcomes of all units. Similarly, it is recommended that the delivery and design of any education provision is such that it facilitates the assimilation of knowledge through applied practice to best prepare individuals for any subsequent assessment and, to ensure that they are equipped to deliver safe and effective strength and conditioning coaching.

EuropeActive's aim is to make the accreditation process for training providers more transparent and the educational and vocational programmes more comparable. Therefore, presented below are the recommended Guided Learning Hours for the 'Strength and Conditioning Coaching' Lifelong Learning Standard. Using credits from ECVET<sub>2</sub> and ECTS<sub>3</sub> in this Standard, we also want to facilitate the transferability of the educational modules or individual learning units between vocational education and training (VET) and higher education (HE) systems.

<b>Recommended Minimum Guided Learning Hours, estimated Total Qualification Time, number of ECVET and ECTS for 'Strength and Conditioning Coaching'</b>		
<b>No.</b>	<b>Learning outcomes unit</b>	<b>Recommended guided learning hours<sup>1</sup></b>
1.	Coaching theory and professional skills	6-10
2.	Training Theory	6-8
3.	The theory and practice of force development	16-20
4.	The theory and practice of speed and agility ('gamespeed') development	16-20
5.	The theory and practice of endurance development	12-16
6.	Performance assessment and monitoring	10-12
<b>Minimum Guided Learning Hours</b>		66-86
<b>Estimated Total Qualification Time (Guided Learning Hours + Self Learning Hours)</b>		200 (this is advised to be spread over an extended period of applied practice to enable the skills and knowledge developed to be applied and to generate the necessary applied evidence.
<b>Number of ECVET<sup>2</sup></b>		8
<b>Number of ECTS<sup>3</sup></b>		8
<sup>1</sup> Time of 45-60 min; <sup>2</sup> 1 ECVET is approx. 8-10 Guided Learning Hours + 15-20 Self Learning Hours (25-30 learning hours in total); <sup>3</sup> 1 ECTS = 25-30 learning hours;		

<sup>1</sup> For more information see the 'Learning hours recommendation for EA Standards or Qualifications' (2020)

<sup>2</sup> ECVET – European Credit System for Vocational and Education Training

<sup>3</sup> ECTS – European Credit Transfer System (HE)

The educational credits obtained in connection with the confirmation of this Lifelong Learning Standard can be used to maintain the status of the exercise professional in EREPS. It can also be part of the required credits to apply for recognition as a Master Personal Trainer.

Training providers should note that the required Guided Learning Hours above are the minimums we would accept in the accreditation process. In addition, we will carefully analyse the strategy for assessing the achievement of individual learning outcomes. We recommend exceeding these minimums if training providers recognise that more hours are needed for learners to achieve all learning outcomes indicated for the 'Strength and Conditioning Coaching' Lifelong Learning Standard. In special cases, it is possible to apply for the accreditation of vocational courses that do not meet the criterion of minimum guided learning hours. In such cases, it will then be necessary to provide both a detailed assessment strategy and evidence that all learning outcomes have been achieved by each learner. Whenever possible, we recommend implementing a compulsory professional practice for the learners in order to gain practical skills.

## V. Requirements for individuals delivering the courses

Given the emphasis on practical application of the standards a pre-requisite for any individual delivering courses designed to provide the qualification is that they possess the necessary theoretical and practical knowledge and experience to deliver the prescribed content. Pre-requisites include a professional accreditation in strength and conditioning (NSCA-CSCS, UKSCA-ASCC, ASCA Elite), a minimum of an EQF Level 6 (bachelor's degree) qualification in a related field, together with an extensive portfolio of practical experience of delivery of strength and conditioning.



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