



Model Curriculum

QP Name: Strength and Conditioning Coach

QP Code: SPF/Q1111

QP Version: 2.0

NSQF Level: 6

Model Curriculum Version: 2.0

Sports, Physical Education, Fitness and Leisure Sector Skill Council
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Training Parameters

Sector	Sports
Sub-Sector	Sports Coaching and Fitness
Occupation	Sports Coaching
Country	India
NSQF Level	6
Aligned to NCO/ISCO/ISIC Code	NCO-2015/3423.9900
Minimum Educational Qualification and Experience	<p>Pursuing first year of 2-year PG program after completing 3-year UG degree OR Pursuing PG diploma after 3-year UG degree OR Completed 4-year UG (in case of 4-year UG) OR Pursuing 4th year UG (in case of 4-year and continuing education) OR 12th class pass with 4 years of experience working in the gym, sports academy as a trainer/coach OR</p> <p>Certificate-NSQF Level 5 (Personal Fitness Trainer/Group Fitness Trainer & Community Sports Coach) with 3 Years of experience working in the gym, sports academy as a trainer/coach</p>
Pre-Requisite License or Training	NA
Minimum Job Entry Age	21 years
Last Reviewed On	16/12/2020
Next Review Date	27/05/2024
NSQC Approval Date	27/05/2021
QP Version	2.0
Model Curriculum Creation Date	16/12/2020
Model Curriculum Valid Up to Date	27/05/2024



Model Curriculum Version	2.0
Minimum Duration of the Course	660 Hours
Maximum Duration of the Course	660 Hours

Program Overview

This section summarizes the end objectives of the program along with its duration.

Training Outcomes

At the end of the program, the learner will be able to:

- Conduct performance analysis of athletes.
- Create a periodized strength and conditioning training plan.
- Conduct training sessions as per the different stages of periodization.
- Guide athletes with correct intensity, frequency, and techniques to make exercise effective and injury-free.
- Demonstrate advanced warm-up, cool down, and recovery exercises.
- Conduct performance tests and create benchmarks for each athlete.
- Create an athletic profile of each athlete.
- Follow safety protocols for injury prevention and medical emergencies.

Compulsory Modules

The table lists the modules, their duration and mode of delivery.

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
SPF/N1134 – Plan strength and conditioning program NOS Version No. 2.0 NSQF Level: 6	45:00	45:00	00:00	00:00	90:00
Bridge Module Module 1: Introduction to strength and conditioning training	15:00	00:00	00:00	00:00	15:00
Module 2: Create a periodized strength and conditioning training plan	30:00	45:00	00:00	00:00	75:00
SPF/N1135 – Implement strength and conditioning NOS Version No. 2.0 NSQF Level: 6	30:00	150:00	30:00	00:00	210:00
Module 3: Conduct strength and conditioning training	30:00	150:00	30:00	00:00	150:00
SPF/N1136 – Evaluate athletic performance	30:00	120:00	30:00	00:00	180:00

and create an athlete profile NOS Version No. 2.0 NSQF Level: 6					
Module 4: Assess athlete performance and generate reports	30:00	120:00	30:00	00:00	150:00
SPF/N1122 – Maintain health and safety standards NOS Version No. 2.0 NSQF Level: 4	30:00	30:00	00:00	00:00	60:00
Module 5: Identify potential risks and respond to medical emergencies	15:00	15:00	00:00	00:00	30:00
Module 6: Maintain hygiene and sanitation	15:00	15:00	00:00	00:00	30:00
SGJ/N1702 - Optimize resource utilization at the workplace NOS Version No. 1.0 NSQF Level 3	15:00	15:00	00:00	00:00	30:00
Module 7: Create an environmentally Sustainable workplace	15:00	15:00	00:00	00:00	30:00
DGT/VSQ/N0103: Employability skills (90 Hours) NOS Version No. 1.0 NSQF Level: 5	45:00	45:00	00:00	00:00	90:00
Module8: Employability skills	45:00	45:00	00:00	00:00	90:00
Total Duration	195:00	405:00	60:00	00:00	660:00

Module Details

Module 1: Introduction to strength and conditioning training

Bridge Module

Mapped to SPF/N1134, v2.0

Terminal Outcomes:

- Describe the role and career opportunities of a strength and conditioning coach.

Duration: 15:00	Duration: 00:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> State the role and responsibilities of a strength and conditioning coach. Discuss how a strength and conditioning coach is different from a sports coach, personal fitness trainer, sports doctor, etc. List the career opportunities of a strength and conditioning coach. 	<ul style="list-style-type: none"> Role-play to highlight the specific technical responsibilities of a strength and conditioning coach in comparison to a sports coach. Create a career progression chart of a strength and conditioning coach.
Classroom Aids:	
Laptop, whiteboard, marker, projector, chart paper, clipboards	
Tools, Equipment, and Other Requirements	
NA	

Module 2: Create a periodized strength and conditioning training plan

Mapped to SPF/N1134, v2.0

Terminal Outcomes:

- Conduct performance analysis tests.
- Design a periodized strength and conditioning training plan.

Duration: 30:00	Duration: 45:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the types of performance analysis to be conducted before planning a strength and conditioning training program. • Define periodization. • Explain the importance of designing a strength and conditioning program in conjunction with the sports coaching staff/ team manager. • Discuss the importance of maintaining the athlete's information confidential. • Discuss doping and its consequences. 	<ul style="list-style-type: none"> • Demonstrate how to evaluate the requirements of a sport and assess the athlete to design a strength and conditioning program. • Prepare a sample PAR-Q (Physical Activity Readiness Questionnaire). • Demonstrate tests to assess mobility and range of motion. • Demonstrate SAQ (skill, agility, and quickness), test. • Demonstrate Functional Performance Tests (FPT). • Demonstrate tests to assess the strength, power, hypertrophy, and muscular endurance. • Prepare a sample of strength and conditioning training periodization in sports.
Classroom Aids:	
Laptop, whiteboard, marker, projector, chart paper, clipboards, height & weight chart	
Too, Equipment and Other Requirements	
Stopwatch, whistle, marking cones, training hurdles, plyometric boxes, agility ladder, flexi-poles, speed-chute, heart-rate monitor, skipping rope, gym mats, treadmill, stationary bikes, free weights, machine-assisted weights, wearable weights, medicine ball, swiss ball, clapper, bibs, first aid kit	

Module 3: Conduct strength and conditioning training

Mapped to SPF/N1135, v2.0

Terminal Outcomes:

- Apply the principles of sports training.
- Identify training drills/ exercises as per the training phase (preparation, competition, and recovery phase).
- Conduct training sessions to develop different aspects of performance (speed, agility, power, endurance, etc.).
- Monitor training sessions to ensure athletes comply with the best practices of training.

Duration: 30:00	Duration: 120:00
<p>Theory – Key Learning Outcomes</p> <ul style="list-style-type: none"> • List the most effective anaerobic, aerobic and resistance training drills/ exercises and their specific training outcomes. • Explain the importance of warm-up, cool-down, usage of proper equipment, and clothing to minimize injuries during the training. • Explain VO₂ max (maximum rate of oxygen consumption) and its significance. • Explain Maximum Heart Rate (MHR) and its significance. • Explain Lactate Threshold (LT) and its significance. • Explain the principles of load and overload. • Recall the specifics such as training frequency, rest period lengths based on the specific phase of the training (preparation, competition, and recovery phase). • Discuss the factors affecting the fitness levels of the client. • Discuss ways to identify if the athlete is uncomfortable performing the physical activities. • Discuss inappropriate behaviour and sexual harassment in the workplace. 	<p>Practical – Key Learning Outcomes</p> <ul style="list-style-type: none"> • Demonstrate correct layout, distance, and equipment placement as per the standards of each training drills/ exercises/ circuit. • Demonstrate advance warm-up, cool-down exercises with dynamic and static stretching • Calculate VO₂ max (maximum rate of oxygen consumption). • Calculate the Maximal Heart Rate (MHR). • Demonstrate training to develop anaerobic performance (plyometric, speed, agility, development exercises, etc.). • Demonstrate different types of training to develop aerobic performance (continuous training, interval training, circuit training, etc.). • Demonstrate resistance training to develop strength and power (free/ machine-assisted weight, aquatic, sand/uphill training). • Apply gender-sensitive, non-discriminatory language. • Demonstrate athlete interaction– usage of motivational techniques such as positive phrases, feedback on areas of improvement, etc.
<p>Classroom Aids:</p> <p>Laptop, whiteboard, marker, projector, chart paper, clipboards</p>	
<p>Tools, Equipment and Other Requirements</p> <p>Stopwatch, marking cones, training hurdles, plyometric boxes, agility ladder, flexi-poles, speed-chute, heart-rate monitor, skipping rope, gym mats, treadmill, stationary bikes, free weights, machine-assisted wearable weights, medicine ball, swiss ball, clapper, bibs, first aid kit</p>	

Module 4: Assess athlete performance and generate reports

Mapped to SPF/N1136, v2.0

Terminal Outcomes:

- Conduct performance tests to evaluate the progress of the athletes.
- Identify rubrics, grading parameters and protocols for each test.
- Compare the performance of a client with national and international standards.
- Identify the client's areas of improvement, if any, and plan remedial actions.
- Create an athlete profile.

Duration: 30:00	Duration: 120:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Recall tests to be conducted to evaluate the specific component of performance (agility, endurance, speed, power, mobility, etc.). • Discuss the ground marking, correct layout, distance, space, equipment required to conduct the SAQ test (Speed, Agility, Quickness). • Discuss the correct layout, distance, space, equipment required to conduct the aerobic capacity test. • Identify the rubrics, grading parameters, methods and protocols for conducting each test. • Explain performance benchmarks and discuss their significance. • Discuss the importance of referring athletes to other professionals (nutritionist, psychologist, performance councillor, etc.) for the specific requirement. • Discuss the importance of collecting feedback on methods of training. 	<ul style="list-style-type: none"> • Record VO2 Max, Maximum Heart Rate (MHR) and set threshold. • Demonstrate SAQ tests – Illinois Agility Run Test, T-Test, LEFT-test, etc. • Demonstrate tests to measure aerobic performance - Cooper Test, Multistage Beep Test, Harvard Step Test, etc. • Demonstrate tests to measure anaerobic capacity – Running-based Anaerobic Sprint Test (RAST), Maximal Anaerobic Running Test (MART), etc. • Demonstrate tests to strength and power - Vertical Jump, Three Modified Box Long Jump (MBLJ), Medicine ball throw, etc. • Create a sample comparative (pre-post) fitness assessment report of the clients. • Create samples of self-evaluation forms for the clients. • Compare and analyse test records with the national, international benchmarks and generate performance reports. • Create a sample athlete profile. • Create a sample remedial training plan for athletes who need improvement.
Classroom Aids:	
Laptop, whiteboard, marker, projector, chart paper, clipboards, writing pads	
Tools, Equipment and Other Requirements	
Stopwatch, whistle, marking cones, training hurdles, plyometric boxes, agility ladder, flexi-poles, speed-chute, heart-rate monitor, skipping rope, gym mats, treadmill, stationary bikes, free weights, machine-assisted weights, wearable weights, medicine ball, swiss ball, clapper, bibs, first aid kit	

Module 5: Identify potential risks and respond to medical emergencies

Mapped to SPF/N1122, v2.0

Terminal Outcomes:

- Conduct basic first aid.
- Identify medical emergencies.

Duration: 15:00	Duration: 30:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Discuss the common types of injuries that might occur during the training. • Explain the steps to be followed during medical emergencies. • Explain the factors that lead to injuries during the training. 	<ul style="list-style-type: none"> • Demonstrate ways to find if the injury is major or minor. • Demonstrate the process of administering first aid for common injuries. • Perform CPR (Cardio-Pulmonary Resuscitation) • Demonstrate emergency evacuation procedures and protocols in case of fire or natural disaster.
Classroom Aids:	
Laptop, whiteboard, marker, projector, chart paper, clipboards, sample performance report	
Tools, Equipment and Other Requirements	
First aid kit, stretcher, arm-sling, crutches	

Module 6: Maintain hygiene and sanitation

Mapped to SPF/N1122, v2.0

Terminal Outcomes:

- Create a healthy and hygienic environment for clients.

Duration: 15:00	Duration: 30:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Recall the importance of hygiene and sanitary regulations at the workplace. • Discuss the ways to maintain personal hygiene before and after the training session. • Identify the sanitizing agents which are safe for both machinery and equipment. • Identify the sanitizing agents safe for the athletes. • Discuss ways to promote a safe and interactive environment. 	<ul style="list-style-type: none"> • Demonstrate hygiene and sanitation checks of play area and equipment. • Prepare a sample report on the maintenance of hygiene and sanitation at the workplace. • Demonstrate ways to sanitize equipment and machinery before and after the usage. • Draft a sample report for advanced hygiene and sanitation issues to appropriate authority.
Classroom Aids:	
Laptop, whiteboard, marker, projector, chart paper, clipboards	
Tools, Equipment and Other Requirements	
Alcohol-based sanitizer, surface disinfectant	

Module 7: Create an environmentally sustainable workplace

Mapped to SGJ/N1702, v1.0

Terminal Outcomes:

- Identify effective waste management techniques in the workplace.
- Ways to make the workplace environmentally sustainable.

Duration: 15:00	Duration: 15:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Recognize the environment-friendly materials available to replace conventional materials. • Discuss ways of disposing non-recyclable waste appropriately. • Explain common sources of pollution and ways to minimize them. 	<ul style="list-style-type: none"> • Prepare statutory documents relevant to safety and hygiene. • Demonstrate the methods of disposing non-recyclable waste. • Report malfunctioning. (fumes/sparks/emission/vibration/noise) and lapse in maintenance of equipment.
Classroom Aids:	
Laptop, whiteboard, marker, projector, chart paper, clipboards	
Tools, Equipment and Other Requirements	
Gloves, safety goggles, ladder	

Module 8: Employability Skills

Mapped to DGT/VSQ/N0103, v1.0

Terminal Outcomes:

- Understand Employability skills along with communication skills and constitutional values
- Able to set a goal and create a career plan, along with knowledge financial and legal knowledge

Duration: 45:00	Duration: 45:00
Theory – Key Learning Outcomes <ul style="list-style-type: none"> • Discuss the Employability Skills required for jobs in various industries. • Explain the constitutional values, including civic rights and duties, citizenship, responsibility towards society and personal values and ethics such as honesty, integrity, caring and respecting others that are required to become a responsible citizen • Describe the role of digital technology in today's life • Explain entrepreneurship and opportunities available • Identify different types of customers and their needs • Explain skills required to become a 21st century professional • Teach to read and write basic English • Explain effective communication skills • Teach basic financial and legal knowledge 	Practical – Key Learning Outcomes <ul style="list-style-type: none"> • Create a career plan • Implement Self-awareness, time management, critical thinking, problem solving • Create sample word documents, excel sheets and presentations using basic features, utilize virtual collaboration tools to work effectively wherever necessary • Implement communication skills while handling different customers • Use appropriate basic English sentences/phrases while speaking. Differentiate between types of customers. • Create a biodata. • Use various sources to search and apply for jobs.
Classroom Aids:	
Charts, Models, Video presentation, Flip Chart, Whiteboard/Smart Board, Marker, Duster	
Tools, Equipment and Other Requirements	
computer (PC) with latest configurations, Computer Tables, Computer Chairs, UPS, Scanner cum Printer	

On-the-Job Training

Mapped to Strength and Conditioning coach

Mandatory Duration: 60:00	Recommended Duration: 00:00
Location: On-Site	
Terminal Outcomes <ul style="list-style-type: none">• Conduct training sessions as per the different stages of periodization.• Guide athletes with correct intensity, frequency, and techniques to make exercise effective and injury-free.• Create an athletic profile of each athlete.• Follow safety protocols for injury prevention and medical emergencies.• Demonstrate ways of communicating with participants using gender-sensitive, non-discriminatory language.• Practice effective waste management techniques in the workplace.	

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
Graduate	Fitness and conditioning	Minimum of 2-3 years	Must have worked in the fitness industry as a fitness trainer/personal fitness trainer	Minimum of 2-3 years	Course instructor of personal/group /Athlete fitness training program	The Strength & Conditioning coach must be physically fit with good communication skills. The individual must be detail-oriented and attentive

Trainer Certification	
Domain Certification	Platform Certification
Certified ToT for job role "Strength and conditioning coach" mapped to QP "SPF/Q1111, v2.0" Minimum accepted score is 80%	Recommended that the trainer is certified for the Job-Role "Trainer" (VET and skills), mapped to Qualification Pack: MEP/Q2601, v2.0" Minimum accepted score is 80%

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
Graduate	Fitness and conditioning	Minimum of 3 years	Must have worked in the fitness industry as a fitness trainer/personal fitness trainer	Minimum of 3 years	Course instructor of personal/group fitness training program	All empanelled Assessors would have to undergo “Train the Assessor” Program conducted by SPEFL SC for each job role time to time

Assessor Certification	
Domain Certification	Platform Certification
Certified ToA for job role “Strength and conditioning coach” mapped to QP “SPF/Q1111, v2.0” Minimum accepted score is 80%	Recommended that the assessor is certified for the Job-Role “Assessor” (VET and skills) mapped to the Qualification Pack: MEP/Q2701, v2.0” Minimum accepted score is 80%

Assessment Strategy

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the SPEFL - Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down the proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on the knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for the theory part for each candidate at each examination/training centre as per assessment criteria below.
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training centre based on these criteria.
6. To pass the Qualification Pack assessment, every trainee should score a minimum of 70% of aggregate marks to successfully clear the assessment.
7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Recommended Pass % aggregate for QP: 70

Each NOS in the Qualification Pack (QP) will be assigned a relative weightage for assessment based on the criticality of the NOS. Therein each Performance Criteria in the NOS will be assigned marks for or practical based on relative importance, criticality of function and training infrastructure.

The following tools are proposed to be used for final assessment:

1. **Practical Assessment:** This will comprise of a creation of mock environment in the skill lab which is equipped with all equipment's required for the qualification pack. Candidate's soft skills, communication, aptitude, safety consciousness, quality consciousness etc. will be ascertained by observation and will be marked in observation checklist. The product will be measured against the specified dimensions and standards to gauge the level of his skill achievements.
2. **Viva/Structured Interview:** This tool will be used to assess the conceptual understanding and the behavioural aspects as regards the job role and the specific task at hand. It will also include questions on safety, quality, environment, and equipment, etc.
3. **Written Test:** Under this test few key items which cannot be assessed practically will be assessed. The written assessment will comprise of:
 - i. True / False Statements
 - ii Multiple Choice Questions
 - iii Matching Type Questions.
 - iv Fill in the blanks

Accreditation of Assessing Body:

The SPEFL SC's Accreditation process is divided into two steps:

1. Pre-accreditation process:

- Apply for Accreditation: Application form with desired documents in prescribed format to be sent.
- Document Compliance: to be done for ensuring the compliance and adherence of applied assessing body according to criteria laid down by SPEFL SC.
- Presentation on Quality Assurance: to be given by Assessing body highlighting the quality assurance process laid down by Assessing body at the process points.
- Once the assessing body clears the due diligence process, the accreditation is given along with terms and conditions.

2. Post-accreditation process: Post accreditation, the accredited assessing bodies needs to fulfil following minimum eligibility criteria or requisites for implementation:

- All Empanelled Assessors would have to undergo "**Train the Assessor**" Program conducted by SPEFL SC for each job role time to time.
- Accredited Assessing Body would have to abide with requisite timelines, policies and regulations declared by SPEFL sector skill council.
- Accredited Assessing Body with times would have to contribute to expansion of the questionnaire.

References

Glossary

Term	Description
Key Learning Outcome	Key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application).
OJT (M)	On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on-site
OJT (R)	On-the-job training (Recommended); trainees are recommended the specified hours of training on site
Training Outcome	Training outcome is a statement of what a learner will know, understand and be able to do upon the completion of the training.
Terminal Outcome	Terminal outcome is a statement of what a learner will know, understand and be able to do upon the completion of a module . A set of terminal outcomes help to achieve the training outcome.

Acronyms and Abbreviations

Term	Description
QP	Qualification Pack
NSQF	National Skills Qualification Framework
NSQC	National Skills Qualification Committee
NOS	National Occupational Standards