

iCREPS

INTERNATIONAL CONFEDERATION OF
REGISTERS FOR EXERCISE PROFESSIONALS



Global Standards for Exercise Professionals

- *Gym Instructor*
- *Group Fitness Instructor*
- *Personal Trainer*
- *Special Populations*

Supported by





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Introduction

Health and fitness is a global industry where club operators and independent trainers provide exercise for many millions of people across the world. Providing safe and effective exercise relies on skilled and knowledgeable instructors working in the industry. As the health and fitness industry has reached new levels of professionalism there has been a focus on setting standards of instructor performance, ensuring fit-for-purpose qualifications and implementing registration systems for exercise professionals. The development of a qualified and competent workforce is vital if the industry is to realise its economic and social aims and gain greater respect from governments and the health sector. These ICREPs Global Standards for Exercise Professionals aim to support the concept of professionalism and set a global benchmark for the competences required of exercise professionals.

What are “Standards”?

The ICREPs 2020 Global Standards for Exercise Professionals are a statement of the skills and knowledge individuals need to perform safely and effectively in the workplace, they define competence in a work situation. Standards refer to the performance an individual must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding required to perform tasks safely and effectively.

The development and maintenance of competency standards like these is normally the responsibility of standards setting organisations which are supported by the national government. In some cases standards are developed by organisations that operate within the fitness industry itself.

Occupational standards, and the functional analysis process that leads to the standards, are closely linked to the concept of occupational competence. When carrying out functional analysis, we look at the following:

- Technical requirements - these include the occupational skills and knowledge
- Requirements to do with managing the work process - these include things such as identifying resource needs, planning work, monitoring quality, solving problems and suggesting improvements
- Requirements for dealing with contingencies – knowing what to do when things go wrong or not as planned
- Requirements to do with managing the work environment - this could include things such as health and safety

Employers value employees who are broadly competent across all of these areas, not just the technical requirements.

Occupational standards are useful for making clear routes for career progression, understanding competences, and transferring those competences to other related occupational areas.

How the Standards were developed

Work to develop a shared global understanding of standards for exercise professionals began under the leadership of ICREPs in 2005 with the mapping of national standards which existed at the time in UK, Australia and New Zealand. ICREPs Global Standards were first published in 2011 and updated in 2013.

The ICREPs 2020 Global Standards for Exercise Professionals do not reinvent the wheel. The content comes from standards that already exist in ICREPs member countries. In particular approved national standards have been referenced and used as a source from the UK, Australia, New Zealand and South Africa. Furthermore, and new for 2020, the Job Task Analysis and Knowledge, Skills and Abilities developed by the certification bodies that are members of USREPs from the United States have been mapped in to these standards and used as a reference. Other standards and benchmarks of instructor competence from around the world were also referenced in the production of these standards.

Standards in these countries are updated on a regular basis, during the update process they are consulted on widely at the national level to ensure they reflect current practice. This means that 100% of the content for the ICREPs 2020 Global Standards for Exercise Professionals is taken from endorsed and up-to-date industry standards from ICREPs member countries.

This means that all the content has been fully consulted on with employers, training providers, instructors and others from across the industry.

Before publication these standards were peer reviewed by a range of experts in the production of professional standards for the health and fitness industry.



ICREPs

The ICREPs 2020 Global Standards for Exercise Professionals are published by the International Confederation of Registers for Exercise Professionals (ICREPs). ICREPs is an international partnership between registration bodies around the world that register exercise professionals.

ICREPs is a membership based organisation. Members operate independent, competency based registration systems for exercise/fitness professionals. ICREPs members operate in five continents, over 10 countries, and collectively register around 200,000 individual exercise professionals. ICREPs has also produced a global matrix that maps each ICREPs member's registration levels against the others, which provides a clear pathway for exercise professionals considering moving countries.

ICREPs is recognised by IHRSA (the International Health, Racquet & Sportsclub Association) as the global body representing national registration bodies of exercise professionals.

IHRSA supports these 2020 Global Standards for Exercise Professionals.



Current members of ICREPs (November 2020):



AUSTRALIA



CANADA



INDIA



IRELAND



NEW ZEALAND



POLAND



SOUTH AFRICA



UNITED ARAB EMIRATES



UNITED STATES OF AMERICA

Uses of the Standards

ICREPs works actively with organisations in countries who are considering a national register or are in the process of setting one up. ICREPs, working through members or partner organisations, can offer assistance to new countries who request support in developing a register.

New national registers need to be based on competency standards to meet ICREPs criteria. Countries may already have or wish to develop their own standards and this is encouraged by ICREPs. If they wish they may also use these ICREPs 2020 Global Standards for Exercise Professionals as a basis for development of national standards or even adopt them as the national standards which their register will be based on.

In order for a register's members to be internationally portable the register can map to the ICREPs 2020 Global Standards for Exercise Professionals and that can be accepted by ICREPs member countries for portability.

Standards can also be used to:

- Develop education and training programmes
- Benchmark qualification against industry requirements
- Set objectives for performance and appraisal
- Develop training and recruitment programmes to fill any identified gaps
- Develop job descriptions/person specifications identifying the key skills for a particular sport officiating role

How the Standards are presented

This document covers the three fitness disciplines of Gym Instructor, Group Fitness Instructor and Personal Trainer. It also contains standards for special population clients.

The standards are divided in to five groups as follows:

| | |
|----------------|-------------------------------------------|
| Group A | Core Standards |
| Group B | Gym Instructor Standards |
| Group C | Group Fitness Instructor Standards |
| Group D | Personal Trainer Standards |
| Group E | Special Populations Standards |

Group A Core Standards

- A1. Promote health and safety as an exercise professional
- A2. Apply principles of fitness, anatomy and physiology in fitness instruction
- A3. Recognise and apply exercise considerations for specific populations
- A4. Deliver a positive customer experience to clients
- A5. Support client motivation and adherence
- A6. Develop professional practice and personal career in the health and fitness industry

These standards cover the core tasks that relate to all three fitness disciplines included in this document; Gym Instructor, Group Fitness Instructor and Personal Trainer. Exercise professionals in any of these roles should be proficient in the skills and knowledge outlined in these standards.

Group B Gym Instructor Standards

- B1. Provide healthy eating and lifestyle information to clients
- B2. Conduct gym inductions, health screening and fitness assessments
- B3. Plan and instruct exercise in the gym

These standards cover some of the main tasks of the gym instructor. The full set of gym instructor standards consists of both the Core Standards A1 – A6 plus the discipline specific standards B1 and B2.

Group Fitness Instructor Standards

- C1. Conduct health screening
- C2. Deliver Pre-choreographed group exercise to music
- C3. Plan and instruct group exercise
- C4. Plan and instruct water-based fitness

The Core Standards apply to all Group Fitness Instructors. The standard C1 also applies to all Group Fitness Instructors.

Depending on their specialism and the format and environment of the group exercise, Group Fitness Instructors would then be proficient in one or more of C2, C3 or C4.

Pre-choreographed Group Exercise to Music Instructor

The full set of standards that apply to these instructors is A1 – A6, C1 and C2.

Group Exercise Instructors

The full set of standards that apply to these instructors is A1 – A6, C1 and C3

Water-based Fitness Instructors

The full set of standards that apply to these instructors is A1 – A6, C1 and C4

Personal Trainer Standards

- D1. Conduct client consultations and fitness assessments
- D2. Apply the principles of exercise science to programme design
- D3. Apply the principles of nutrition and weight management within an exercise programme
- D4. Design personal training programmes
- D5. Plan and deliver personal training sessions
- D6. Support long-term behaviour change by monitoring client exercise adherence and applying motivational techniques
- D7. Manage, review, adapt and evaluate personal training programmes

The full set of Personal Trainer standards consists of Core Standards A1 – A6 plus the Personal Trainer Standards D1 – D7.

In some cases Personal Trainers will have demonstrated proficiency against the standards A1 – A6 within a pre-requisite gym instructor certification.

Special Population Standards

- E1. Plan and deliver exercise for older adults
- E2. Plan and deliver exercise for clients with disabilities
- E3. Plan and deliver exercise for children and young people
- E4. Plan and deliver exercise for ante and postnatal women

These standards do not form part of the standards for any of the three disciplines of gym instructor, Group fitness instructor or personal trainer. They are additional standards for exercise professionals who wish to work with these special population clients. Therefore it is expected that instructors will already be qualified in exercise instruction before performing the skills in any of these standards.

GROUP A

Core Standards

A1. Promote health and safety as an exercise professional

This standard describes how to promote and ensure health and safety when working as an exercise professional. It is vital to ensure the health and safety of clients, colleagues and yourself as an exercise professional. Health and safety law and regulations will be different in each country around the world. The standard contains some of the key elements of ensuring health and safety in the fitness environment including assessing risk and dealing with incidents and emergencies.

Performance Criteria

Exercise professionals should be able to:

Task 1 - Implement safe work practices

- 1.1 Follow relevant health and safety requirements and procedures at all times
- 1.2 Check for, identify and minimise hazards in the fitness environment
- 1.3 Record and report hazards according to procedures
- 1.4 Identify and report unsafe work practices
- 1.5 Address safety issues within the limits of own role and responsibility
- 1.6 Pass on suggestions for improving health and safety to relevant colleagues

Task 2 - Apply risk management processes

- 2.1 Identify risks
- 2.2 Assess and control risks using organisational procedures
- 2.3 Consult with relevant stakeholders to analyse and evaluate risks
- 2.4 Identify and evaluate control measures
- 2.5 Refer risks to others when required
- 2.6 Maintain risk management documentation

Task 3 - Assist with cleaning the exercise environment

- 3.1 Plan and prepare cleaning activities
- 3.2 Use cleaning substances according to organisational procedures
- 3.3 Clean equipment/ facilities in line with organisational standards and schedule
- 3.4 Use cleaning equipment correctly and safely
- 3.5 Maintain health and safety of self and others during cleaning
- 3.6 Dispose of waste in line with organisational procedures

Task 4 - Maintain equipment for activities

- 4.1 Ensure equipment is in safe working order prior to operation
- 4.2 Examine and check equipment according to maintenance schedules
- 4.3 Conduct routine maintenance and minor repairs within scope of responsibility
- 4.4 Store and handle equipment according to manufacturer instructions
- 4.5 Complete records of routine maintenance and repairs
- 4.6 Report and isolate equipment which is beyond own scope of repair

Task 5 - Respond to emergency situations

- 5.1 Deal with injuries and signs of illness according to organisational procedures
- 5.2 Call for a qualified first aider or the emergency services when required
- 5.3 Follow emergency procedures when required
- 5.4 Identify and follow relevant accident/ incident/ hazard reporting procedures

Knowledge and Understanding

Exercise professionals should know and understand:

- K1 Health and safety requirements in a fitness environment
- K2 Relevant legal and regulatory requirements for health and safety relevant to working in a fitness environment
- K3 The key health and safety documents that are relevant in a fitness environment
- K4 Organisational health and safety policies and procedures which may include: chemical handling, duty of care, emergency procedures, first aid, general maintenance, hazard identification, health and hygiene, manual handling, personal safety, reporting procedures, security, use of personal protective equipment, waste disposal
- K5 Typical safety issues in the fitness environment which may include: environmental conditions, slippery surfaces, manual handling and lifting, toxic substances, industrial gases, body fluids, fire, infectious waste, sharps, chemical spills, dust and vapours, noise, light and energy sources, faulty electrical equipment, faulty sport or activity-specific equipment, vehicles, unsafe working practices, customer behaviour
- K6 Cleaning routines and organisational standards for cleaning
- K7 Different types of waste and how to dispose of it
- K8 Methods of controlling risk in the fitness environment: dealing with the hazard personally, reporting the hazard to the relevant colleague, protecting others from harm
- K9 Roles of designated personnel within the fitness environment which could include: supervisors, managers, team leaders, including nominated person(s) responsible for health and safety
- K10 Definition of hazards and how they can be identified, isolated, eliminated or minimised
- K11 Manufacturers' guidelines and instructions for the use of facilities and equipment
- K12 Policies and procedures related to routine maintenance tasks:
 - work health and safety
 - storage of equipment
 - maintenance schedules
 - record keeping
 - reporting channels
- K13 Documents relating to health and safety that may have to be completed and how to complete them correctly
- K14 Legislative rights and responsibilities for workplace health and safety
- K15 The types of accidents, injuries and illnesses that may occur in the fitness environment
- K16 How to deal with accidents, injuries and illnesses before qualified assistance arrives
- K17 How to decide whether to contact the on-site first aider or immediately call the emergency services
- K18 The procedures to follow to contact the emergency services
- K19 The roles that different staff and external services play during an emergency, including own role
- K20 Techniques for identifying and evaluating risks
- K21 How to identify and evaluate control measures in risk management

A2. Apply principles of fitness, anatomy and physiology in fitness instruction

This standard describes how to apply an understanding of the components and principles of fitness, and an understanding of the human body structure, systems and terminology as they relate to fitness instruction and programming. The standard covers the structure and function of the circulatory system, respiratory system, digestive system, the skeleton, the muscular system, nervous system and energy systems and their relation to exercise.

Performance Criteria

Exercise professionals should be able to:

Task 1 - Understand of the components and principles of fitness, anatomy and physiology

- 1.1 Source and access evidenced based information relevant to the principles and components of fitness, anatomy and physiology
- 1.2 Develop knowledge of anatomical terminology relevant to injury prevention and fitness outcomes
- 1.3 Identify current and emerging knowledge of anatomy and physiology relevant to fitness instruction and programming
- 1.4 Determine credibility of sources of information related to principles of fitness, anatomy and physiology

Task 2 - Apply knowledge of anatomy and physiology to fitness instruction and programming

- 2.1 Apply knowledge of the principles and components of fitness, anatomy and physiology
- 2.2 Use correct anatomical and physiological terminology in a way that can be understood by the client
- 2.3 Apply understanding of injury prevention techniques to fitness instruction and programming
- 2.4 Apply knowledge of the structure and function of the following body systems to fitness instruction and programming: Circulatory; Respiratory; Musculoskeletal; Nervous; Digestive
- 2.5 Apply the limiting factors of the body's energy systems to the setting of exercise intensities when instructing fitness activities
- 2.6 Ensure correct postural alignment for exercises

Task 3 - Explain and demonstrate major movements of the body and major joint actions

- 3.1 Demonstrate major movements of the body while identifying major muscles
- 3.2 Demonstrate actions of major joints during exercise
- 3.3 Explain structure and function of skeletal muscle and process of muscle contraction during exercise
- 3.4 Correctly describe and demonstrate movements of the body to clients

Knowledge and Understanding

Exercise professionals should know and understand:

- K1 Components of health related fitness (muscular strength, hypertrophy, aerobic endurance, muscular endurance, flexibility, body composition) and skill related fitness (agility, balance, coordination, power, reaction time, speed)
- K2 Physiological implications of:
 - specificity
 - progression
 - overload
 - reversibility
 - adaptability
 - individuality
 - recovery time

- K3 The FITT principle (Frequency, Intensity, Time, and Type) and adaptation, modification and progression of each component of FITT in relation to the principles of training
- K4 How the principles of training apply to each of the health-related components of fitness.
- K5 Recognised national/international guidelines for developing the different components of fitness
- K6 Differences between programming exercise for physical fitness and for health benefits
- K7 Principles of Training
- K8 The effect of speed of movement on posture, alignment and intensity
- K9 The effect of levers, gravity and resistance on exercise
- K10 Relevant anatomical and physiological terminology in the provision of fitness instruction and programming
- Anatomical terminology
 - Anatomical planes of movement: frontal (coronal), sagittal and transverse
 - Anatomical terms of location: superior and inferior, anterior and posterior, medial and lateral, proximal and distal, superficial and deep
 - Movement terminology and muscle actions
 - Structural levels of body organisation
 - Functions of major muscles during exercise
 - Types of muscle contractions
 - Tissue types
- K11 The structure and function of the circulatory system
- location, function and structure of the heart
 - how blood moves through the four chambers of the heart
 - systemic and pulmonary circulation
 - the structure and functions of blood vessels
 - systolic and diastolic blood pressure
 - blood pressure classifications
 - heart rate response to exercise
 - oxygen demands of fitness activities
 - relationship between exercise intensity and circulatory and ventilator responses
- K12 The structure and function of the respiratory system
- location, function and structure of the lungs
 - main muscles involved in breathing,
 - passage of air through the respiratory tract
 - process of gaseous exchange of oxygen and carbon dioxide in the lungs
 - respiratory volumes and relationship to fitness levels and exercise
- K13 The structure and function of the skeleton
- basic functions of the skeleton
 - structures of the axial skeleton
 - types of bones
 - structures of the appendicular skeleton
 - classification of bones
 - structure of long bone
 - stages of bone growth and repair
 - posture in terms of curves of the spine, neutral spine alignment, potential ranges of motion of the spine and postural deviations of the spine
 - Exercises to improve postural alignment
- K14 Joints in the skeleton
- classification of joints
 - structure of synovial joints
 - types of synovial joints and their range of motion
 - joint movement potential and joint actions
- K15 The muscular system
- Types, characteristics and functions of muscle tissue,
 - the basic structure of skeletal muscle
 - names and locations the skeletal muscles
 - major muscle groups
 - structure and function of the pelvic floor muscles
 - different types of muscle action
 - joint actions brought about by specific muscle group contractions
 - skeletal muscle fibre types and their characteristics
 - role of muscles during movement
 - structure of tendons and ligaments and their functions
 - Muscle actions and functions during different types of contractions

- K16 The fascia system and how it relates to muscle movement
- K17 How a muscle acts as a prime mover, Agonist, Antagonist, Fixator & Synergist Muscles during different movements
- K18 Life-course of the musculoskeletal system, including bone, to cover children, ante and postnatal women, older adults
- K19 Energy systems and their relation to exercise
- how carbohydrates, fats and proteins are used in the production of energy/adenosine triphosphate
 - the use of the three energy systems during aerobic and anaerobic exercise
 - by-products of the three energy systems and their significance in muscle fatigue
 - energy demands of different activities
 - The effect of exercise intensity on the energy substrate
 - Recovery
 - times of energy systems and recovery techniques
- K20 The nervous system and its relation to exercise
- role and functions of the nervous system
 - structure and function of nerves
 - principles of muscle contraction
 - 'all or none law'/motor unit recruitment
 - how exercise can enhance neuromuscular connections and improve motor fitness
- K21 Structure and function of the digestive system
- function of each section of the alimentary canal
 - how fats, proteins and carbohydrates are digested and absorbed and the main enzymes involved
 - role of dietary fibre in the maintenance of gut function
 - role of the liver and pancreas in assisting digestion
 - timescales for digestion
 - importance of fluid
- K22 The acute physiological responses and physiological adaptations of the body's systems to exercise
- K23 Undesirable responses to exercise
- K24 Signs and symptoms of poor adaptation to training
- K25 Thermoregulation of the human body
- K26 Effects of exercise on long and short term physiological adaptations to exercise
- K27 Environmental and physical factors that may affect performance
- K28 Physiological response to different types of training (resistance, flexibility, speed and power)



A3. Recognise and apply exercise considerations for specific populations

This standard describes how to recognise exercise considerations common to specific population groups including disabled clients and older adults. It requires the ability to understand anatomical and physiological considerations and apply that understanding to client exercise participation aimed at improving health-related components of fitness. It applies to fitness instructors working within their scope of practice when providing advice regarding fitness services and referral requirements for clients from the following specific population groups:

- children
- anti/ post natal women
- older adults

This standard does not apply to provision of exercise to higher risk specific population clients such as those referred by a doctor with a medical condition, or exercise prescription for moderate risk clients. This standard applies to fitness instructors who typically work independently with some level of autonomy in a controlled environment.

Performance Criteria

Exercise professionals should be able to:

Task 1 - Use pre-exercise screening tools with clients from specific population groups

- 1.1 Use industry endorsed pre-exercise screening tools and risk stratification processes to identify the overall risk level of clients, and specifically those clients across the following specific population groups:
 - children
 - anti/ post natal women
 - older adults
- 1.2 Discuss pre-screening results with the client and any recommendations/ considerations
- 1.3 With the agreement of the client and meeting organisational guidelines, prepare and send communication about referral, where relevant, to medical or allied health professionals with supporting pre-exercise health screening documentation

Task 2 - Deliver exercise to specific population groups

- 2.1 Where relevant, check medical professional's agreement to proceed with exercise
- 2.2 Conduct sessions with specific population clients that incorporate:
 - appropriate selection and monitoring of a range of gym-based cardiovascular and resistance equipment, appropriate to their individual needs and according to industry guidelines
 - demonstration, explanation, and instruction of exercises tailored to the client
 - injury prevention strategies specific to client needs and programme
 - suitable order and sequence of activities
 - session components that target the needs and goals of the individual
 - suitable duration, intensity, volume
 - on-going clear and constructive feedback to clients and, where required, medical or allied health professionals
 - use of evidence based exercise adherence strategies specific to the
- 2.3 Provide advice regarding fitness services and facilities for specific population clients
- 2.4 Meet requirements for duty of care for clients at all times

Knowledge and Understanding

Exercise professionals should know and understand:

- K1 Legislative and regulatory requirements regarding specific population exercise participation:
 - child protection
 - privacy
 - anti-discrimination
 - health and safety
 - duty of care
- K2 Organisational policies and procedures in regards to specific population exercise participation
- K3 Industry endorsed risk management protocols, exercise implications and referral requirements
- K4 Industry endorsed client pre-exercise screening processes
- K5 Own professional role and scope of practice in relation to other relevant specialists when prescribing exercise and offering health and wellbeing advice and guidance
- K6 Key health risk factors including modifiable and non-modifiable factors
- K7 Common conditions and their symptoms and the impact that the symptoms have on a participant's ability to exercise
- K8 The relationship between health risk factors and common conditions
- K9 The impact medications can have on a participant's ability to exercise
- K10 How pregnancy impacts a participants' ability to exercise
- K11 How physical activity/exercise can help to prevent and manage common health conditions: chronic conditions including coronary heart disease, stroke, type 2 diabetes, cancer, obesity, mental health problems and musculoskeletal conditions
- K12 The range of relevant exercise or health professionals that clients can be signposted/referred onto when they are beyond own scope of practice/area of qualification
- K13 Industry endorsed risk stratification procedures, exercise implications and referral requirements for:
 - low-risk clients
 - moderate risk clients
 - higher risk clients
 - when there are extreme or multiple risk factors present and professional judgement to decide whether further medical advice is required
 - identification of clients at high or higher risk of an adverse event occurring during exercise
 - physical activity and exercise intensity and frequency guidelines
- K14 Precautions to exercise relevant to the specific population in accordance with industry guidelines where applicable
- K15 Benefits versus risk of participation
- K16 Situations where cessation of exercise programme is required, this may include but is not limited to:
 - chest pain at rest or during activity
 - severe breathlessness/feeling faint/dizziness/loss of balance
 - unusual fatigue or shortness of breath
 - asthma aggravation/attack
 - significant muscle, bone or joint pain (beyond what is normally expected during exercise)
 - a situation whereby the fitness professional makes a judgement that continuing the session is beyond their professional capabilities and scope of practice, and could potentially compromise client health and safety
- K17 Signs and symptoms of poor exercise tolerance or unstable condition
- K18 Role of relevant medical or health professionals for referral processes
- K19 Principles of ongoing monitoring of specific population clients, including repeating the pre-screening as appropriate
- K20 Typical anatomical and physiological considerations for the following specific population groups:
 - children
 - anti/ post natal women
 - older adults
- K21 Appropriate management for signs and symptoms of intolerance or an unstable condition:
 - cease or modify exercise
 - refer to a medical or allied health professional
 - call an ambulance if required

A4. Deliver a positive customer experience to clients

This standard describes how to provide good customer service and maximise the customer experience in the health and fitness industry. The standard covers presentation, communication, and customer service and customer engagement. Customer refers to the recipient of health and fitness services.

Performance Criteria

Exercise professionals should be able to:

Task 1 - Provide customer service to clients

- 1.1 Greet clients effectively
- 1.2 Identify client preferences, needs and expectations correctly and recommend appropriate products, services or information
- 1.3 Identify and take opportunities to enhance service quality
- 1.4 Engage with clients during exercise
- 1.5 Consult with a colleague or other professional where there is difficulty in meeting customer needs and expectations
- 1.6 Show sensitivity to cultural and social differences

Task 2 - Communicate with clients

- 2.1 Maintain organisational standards for personal presentation
- 2.2 Communicate with clients in a polite, professional and friendly manner
- 2.3 Use appropriate language and tone in both written and spoken communication
- 2.4 Develop a rapport with and show empathy with clients
- 2.5 Provide information clearly to clients
- 2.6 Gather feedback from clients
- 2.7 Deal with complaints according to organisational requirements
- 2.8 Use appropriate non verbal communication skills
- 2.9 Listen to clients and ask questions to check understanding

Knowledge and Understanding

Exercise professionals should know and understand:

- K1 Legal and ethical issues relating to exercise instructors and client relations
- K2 Standards of personal presentation that apply to the health and fitness industry and own organisation
- K3 The importance of presenting themselves and their organisation positively to clients
- K4 How to communicate effectively with a range of clients including different cultural groups
- K5 Appropriate language and the use of spoken, written and non-verbal communication
- K6 How to obtain feedback to support retention
- K7 Personal and interpersonal factors and their influence on customer service
- K8 How to identify client needs and expectations
- K9 How to find the correct information, products or services to meet client needs and expectations
- K10 How to form effective working relationships with clients
- K11 How to provide on-going customer service to clients
- K12 The importance of client care both for the client and the organisation
- K13 Why it is important to deal with clients' needs to their satisfaction

- K14 Customer service techniques to meet client requirements and requests
- K15 How to develop rapport with clients
- K16 How to promote suitable products and services
- K17 Promotional products and services provided by the fitness industry and the specific organisation
- K18 How to engage with clients during exercise and why client engagement is important
- K19 The importance of customer service to client motivation, adherence and retention
- K20 Demonstrate equality when working with a diverse range of clients
- K21 The importance of customer service in retaining clients and helping to broaden the reach of the health and fitness industry beyond its normal client base
- K22 How to manage conflict
- K23 The typical customer journey in a range of types of fitness facility
- K24 How to deal with complaints
- K25 The importance of being accessible and approachable to clients
- K26 Different methods of customer engagement including face-to-face, social media and digital technology



A5. Support client motivation and adherence

This standard describes how to provide motivation and support to exercise clients. The standard covers exercise preferences, and barriers to exercise and how to overcome them. Goal setting, motivation techniques and factors that affect exercise adherence are also covered.

Performance Criteria

Exercise professionals should be able to:

Task 1 - Assist clients to develop motivational strategies

- 1.1 Identify clients' reasons for taking part in regular exercise and physical activity
- 1.2 Identify clients' preferences for exercise
- 1.3 Check clients understand the benefits of taking part in regular exercise and physical activity
- 1.4 Provide clients with accurate information about the recommended amount of physical activity for them to derive health benefits
- 1.5 Inform clients about opportunities for regular physical activity appropriate to their needs, abilities and preferences
- 1.6 Identify potential barriers to clients taking part in exercise and physical activity and work with clients to develop strategies reduce barriers
- 1.7 Work with clients to make best use of incentives, preferences and rewards

Task 2 - Support client motivation

- 2.1 Support clients to recognise and develop their intrinsic and extrinsic motivation to exercise
- 2.2 Present own personal attitudes, actions and values to positively influence clients exercise adherence and behaviour
- 2.3 Create effective working relationships with clients
- 2.4 Apply a variety of motivational techniques when training clients
- 2.5 Use effective verbal and nonverbal communication skills when instructing clients to improve motivation and performance
- 2.6 Interpret client responses to exercise
- 2.7 Provide positive reinforcement and feedback to clients to positively influence exercise behaviour
- 2.8 Create a positive, motivating and empowering environment that supports clients to adhere to an exercise programme

Knowledge and Understanding

Exercise professionals should know and understand:

- K1 The health benefits of regular physical exercise
- K2 The evidence linking physical activity to health benefits
- K3 The amount of physical activity required to achieve health benefits
- K4 Theories of motivation and behaviour change
- K5 Different stages of behaviour change and common behaviours at each stage
- K6 How to assist clients to develop their own strategy for motivation and adherence
- K7 The typical goals and expectations that clients have
- K8 The types of exercise preferences that different clients may have
- K9 How to support clients to adhere to exercise/physical activity
- K10 How to form effective working relationships with clients
- K11 How to support client motivation and adherence with a diverse range of clients

- K12 The requirements for successful behavioural change
- K13 The typical barriers to exercise/physical activity that clients experience and how to address them
- K14 How incorporating clients' exercise/physical activity preferences into their programme can strengthen motivation and adherence
- K15 Different incentives and rewards that can strengthen clients' motivation and adherence
- K16 The communication skills needed to assist clients with motivation
- K17 How to interpret client responses including body language and other forms of behaviour especially when undertaking physical activity
- K18 Appropriate intervention strategies for each stage of behavioural change
- K19 Personal, environmental and psychological factors and their potential effect on exercise adherence
- K20 The use of technology to support motivation including wearable technology and apps



A6. Develop professional practice and personal career in the health and fitness industry

This standard describes the competence required for self-development and improvement for exercise professionals. This involves evaluating the exercise and physical activity they have planned and delivered, identifying strengths and weaknesses and learning lessons for the future. The standard also covers keeping up-to-date with developments in the health and fitness industry and basic aspects of the business of fitness.

Performance Criteria

Exercise professionals should be able to:

Task 1 - Reflect on professional practice

- 1.1 Evaluate behaviours against a code of conduct or code of ethical practice for instructors
- 1.2 Collect and review the outcomes of working with clients, their feedback and feedback from colleagues or managers
- 1.3 Evaluate the effectiveness of own exercise instruction
- 1.4 Evaluate how effective and motivational relationships with clients have been
- 1.5 Evaluate how well instructing styles matched clients' needs
- 1.6 Evaluate effectiveness in managing clients' exercise, including their health, safety and welfare
- 1.7 Identify ways in which to improve future practice
- 1.8 Discuss ideas with other relevant professionals and take account of their views

Task 2 - Improve own development and career opportunities

- 2.1 Review professional practice on a regular basis
- 2.2 Keep up-to-date with developments in the health and fitness industry
- 2.3 Identify career goals
- 2.4 Develop a personal action plan to help to improve professional practice and career advancement
- 2.5 Take part in relevant development activities as part of personal action plan

Knowledge and Understanding

Exercise professionals should know and understand:

- K1 How to portray a professional image
- K2 The importance of reflection and continuing professional development
- K3 How to monitor the effectiveness of a training programme, exercise instruction, motivational relationships and instructional styles
- K4 The structure of the fitness industry and the role of the exercise professional in the industry
- K5 Industry organisations and their relevance to the fitness professional
- K6 Appropriate registration systems and continuing professional development requirements
- K7 Relevant code of conduct or code of ethical practice
- K8 National guidelines, legislation and organisational procedures relevant to role of an exercise professional
- K9 Employment and career progression opportunities in different sectors of the industry
- K10 How to network and learn from industry groups, exercise community and health professionals
- K11 How to improve own professional practice and career opportunities
- K12 How to access information on developments in the fitness industry
- K13 How to identify areas where further development of professional practice is needed
- K14 How to work within the boundaries of own professional knowledge, competence and qualifications

- K15 The importance of having a personal action plan for development
- K16 The types of development activities that are available and how to access these
- K17 The importance of regularly reviewing and updating personal action plan
- K18 How to identify existing and new trends in the fitness industry
- K19 How to identify the best way to reach potential clients
- K20 Fitness industry product offers and how to support secondary spend
- K21 The importance of digital media in the fitness industry
- K22 Social media/digital profiles and their impact.
- K23 How to set up a professional social media/digital profile



GROUP B

Gym Instructor Standards

B1. Provide healthy eating and lifestyle information to clients

This standard describes how to promote a healthy lifestyle and provide healthy eating information to clients. It is important to take a holistic approach to health and wellbeing. The standard also covers the provision of nutritional support to fitness clients within the scope of a fitness instructor. Finally it covers supporting positive attitudes to eating and body composition.

Performance Criteria

Exercise professionals should be able to:

Task 1 - Support client overall health and wellness

- 1.1 Identify and address barriers that may impact on health and wellness
- 1.2 Support clients to implement health and wellness strategies
- 1.3 Offer advice and guidance to promote positive lifestyle choices in relation to stress, sleep, nutrition and exercise

Task 2 - Provide healthy eating information

- 2.1 Access and provide evidence-based information regarding healthy eating to clients
- 2.2 Explain adverse effects of poor nutrition to clients.
- 2.3 Show sensitivity to cultural and social differences influencing food choices
- 2.4 Identify and refer clients with specific dietary requirements or dietary concerns to a health professional
- 2.5 Maintain records of client consultations ensuring security and confidentiality of records

Task 3 - Provide nutritional support for exercise participants

- 3.1 Apply knowledge of evidence-based general nutritional guidelines
- 3.2 Explain an evidence-based dietary assessment method to a client
- 3.3 Provide evidence-based information on diets to help clients to make informed decisions

Task 4 - Support positive attitudes to eating and body composition

- 4.1 Discuss with clients the differences between body composition measurements and normal body composition ranges based on age and gender, and their limitations
- 4.2 Model healthy eating behaviours and attitudes in personal practice

Knowledge and Understanding

Exercise professionals should know and understand:

- K1 Their own role and limitations in providing healthy eating information
- K2 How to source accurate, up-to-date and evidence based information on a range of health and wellness topics
- K3 How to determine if source of information is credible
- K4 Methods which can be used to promote a healthy lifestyle to clients
- K5 The role of stress, sleep, nutrition and exercise in maintaining healthy lifestyle
- K6 Information to promote positive attitudes to eating and body composition:
 - The relationship and difference between fitness, health and appearance
 - relationship between healthy eating, physical and mental health
 - realistic expectations of nutrition and goal attainment
 - link between healthy eating and common client health conditions
- K7 Relevant current healthy eating information:
 - food groups and nutrients
 - balanced diet
- K8 Why it is important not to prescribe or write diets for clients
- K9 The relationship between attitudes to eating and physical and mental health
- K10 Nutrients and their relationship with the body.
 - Macro and micro nutrients.
 - The use of nutrients by the body in terms of storage, function and food sources.
 - The use of nutrients by the body during physical activity.
 - The cause and effects of nutritional imbalances and the age groups and genders that are commonly associated with these.
 - Nutrition principles and how to establish what qualifies as evidence based.
 - Recommended daily nutritional intakes
 - Nutrient information on food and fluid labels and recommended daily intakes.
 - How diet can impact on a client's goals and outcomes.
- K11 The relationship between fluid replacement and physical activity.
- K12 The effects of substances on fluid replacement and the implications for physical activity, to include electrolyte substances, sodium, alcohol, caffeine, liquid supplements, water, diuretics.
- K13 Techniques to remain hydrated for people involved in physical activity, to include water, isotonic, hypertonic.
- K14 Signs of dehydration in terms of perceived symptoms and observable effects
- K15 The effects of, and steps to manage, dehydration and over-hydration in relation to health and physical activity
- K16 How to deal with basic questions about supplementation and how and when to refer questions to a more appropriately qualified professional
- K17 How nutritional needs will differ for special population clients and how to and when to refer special population clients to a more qualified professional



B2. Conduct gym inductions, health screening and fitness assessments

This standard describes how to induct clients in the gym and provide fitness orientation. It also covers how to identify the fitness requirements of clients through the use of a screening form and collecting information about exercise preferences, barriers to exercise and goal setting. Finally the standard covers how to carry out a range of health and fitness assessments relevant to the gym based client.

Performance Criteria

Exercise professionals should be able to:

Task 1 - Induct clients in the gym

- 1.1 Show potential clients/ members around a gym; to include gym floor, studio, CV machines, resistance equipment (machines and free weights)
- 1.2 Provide gym inductions for individuals and groups

Task 2 - Identify client fitness requirements

- 2.1 Question clients to confirm fitness goals, expectations and preferences
- 2.2 Confirm current and past physical activity participation
- 2.3 Describe available programmes, services and facilities relevant to client needs and expectations

Task 3 - Administer pre-exercise health screening questionnaire

- 3.1 Explain purpose of pre-exercise health screening questionnaire and risk stratification to client
- 3.2 Be aware of cultural considerations
- 3.3 Administer an industry standard pre-exercise health screening questionnaire to client
- 3.4 Discuss outcomes of pre-exercise health screening with client
- 3.5 Refer client to medical practitioner or other appropriate professionals for further appraisal as required by industry guidelines

Task 4 - Advise benefits of fitness activities and exercise prescription

- 4.1 Explain benefits of fitness activities and fitness programmes
- 4.2 Advise client regarding suitability of relevant activities and programmes

Task 5 - Plan fitness assessments

- 5.1 Explain value of fitness assessments in relation to programme development and seek client consent
- 5.2 Review pre-exercise health screening and fitness assessment procedures
- 5.3 Determine tools and methods to conduct health and fitness assessments

Task 6 - Conduct fitness assessments

- 6.1 Conduct health and fitness assessments in a safe and timely manner using assessments relevant to the general population, including:
 - Resting heart rate
 - Blood pressure
 - Submaximal cardiorespiratory fitness
 - Muscular strength
 - Body mass index
 - Waist circumference
 - Agility
 - Range of motion

- 6.2 Select and use communication techniques that encourage and support the client
- 6.3 Monitor client for signs and symptoms of intolerance and discontinue fitness assessments as required
- 6.4 Explain results of fitness assessments in relation to exercise programming using common terminology to help ensure understanding
- 6.5 Maintain client confidentiality
- 6.6 Develop a client profile and record outcomes of fitness assessments and exercise programme recommendations.
- 6.7 Review individualised exercise goals and implement adjustments to goals due to fitness assessment results
- 6.8 Refer client to a medical or allied health professional as required

Task 7 - Evaluate fitness appraisal

- 7.1 Request and respond to feedback from client
- 7.2 Identify and document aspects needing further attention

Knowledge and Understanding

Exercise professionals should know and understand:

- K1 Policies and procedures for gym inductions
- K2 Policies and procedures for the collection, use and storage of personal client information
- K3 Ways of establishing rapport with different types of clients
- K4 The purpose and content of health screening questionnaires
- K5 Industry endorsed risk stratification models and procedures
- K6 Different types of information which can be collected from clients and methods of collection
- K7 How to analyse and interpret collected information so that client needs and goals can be identified
- K8 Typical contraindications to physical activity and how to respond to these
- K9 Correct methods of gathering, storing and disposing of client information
- K10 Professional boundaries and how to refer to other professionals
- K11 Medical conditions that require medical clearance or referral
- K12 Role of medical or allied health professionals in the referral processes
- K13 The impact of lifestyle behaviours on health and fitness and the benefits of exercise and physical activity
- K14 How to manage the expectations of clients
- K15 How to work with clients to develop, agree and record client goals
- K16 Why it is important to base goal setting on proper analysis of clients' needs
- K17 Features and benefits of fitness facilities, exercise programmes and services
- K18 Legislation, regulatory and organisational requirements relevant to:
 - fitness assessments and collection of client information
 - negligence and duty of care
 - appropriate collection and storage of client information
 - application of legal and ethical limitations of own role
 - work health and safety/occupational health and safety
 - Data protection and confidentiality
- K19 Health-related components of fitness:
 - body composition
 - muscle endurance
 - muscle strength
 - cardiovascular endurance
 - flexibility
 - Resting heart rate
- K20 Contraindications and precautions to participation in health and fitness assessments
- K21 Benefits of fitness assessment procedures and testing

- K22 Situations where it is appropriate not to carry out fitness assessments with clients
- K23 Organisational policies and procedures relevant to: fitness assessments and collection of personal information
- K24 Signs and symptoms of exercise intolerance
- K25 Effects of medication on selection of fitness assessments
- K26 Methods for measuring exercise intensity:
- heart rate response
 - respiration rate response
 - rate of perceived exertion
 - work output
- K27 Exercise adherence and behavioural change strategies: habits; intrinsic and extrinsic motivation; goal setting
- K28 Fitness industry standard appraisal equipment suitable for assessing health-related components of fitness:
- heart rate monitor
 - tape measure
 - scales
 - sit and reach tools
 - bicycle, treadmill, rowing ergometer or step-up box
 - stop watch



B3. Plan and instruct exercise in the gym

This standard describes how to plan, demonstrate, supervise and monitor gym based exercise. The standard covers collecting information, planning gym programmes, instructing in the gym and supervising exercise. Monitoring client progress and adapting gym programmes is also covered.

Performance Criteria

Exercise professionals should be able to:

Task 1 - Identify client fitness requirements

- 1.1 Gather clients' health screening information and fitness assessment results
- 1.2 Identify clients' current fitness profile, training history, exercise preferences, exercise contraindications, specific fitness goals
- 1.3 Establish the physical, psychological and social reasons for clients' participation in an exercise programme
- 1.4 Identify client needs and any possible risks from participation in a gym programme
- 1.5 Identify the joint movements and muscles that a client needs to target or strengthen to reach their goals
- 1.6 Explain the relative contribution of aerobic and anaerobic fitness from recommended activities to clients
- 1.7 Follow legal and ethical requirements for the security and confidentiality of client information

Task 2 - Plan gym programmes

- 2.1 Apply the principles and variables of fitness to plan programmes to meet client goals or to achieve general fitness and health gains
- 2.2 Select gym exercises that will help clients to develop one or more of: cardiovascular fitness, muscular strength, muscular endurance, flexibility
- 2.3 Select equipment for gym programmes as appropriate to client needs
- 2.4 Plan realistic timings and sequences for exercise
- 2.5 Help clients to identify barriers to adherence and how to overcome them
- 2.6 Plan how to minimise any risks relevant to the programme
- 2.7 Record programme plans in an appropriate format

Task 3 - Instruct gym-based exercise

- 3.1 Ensure appropriate equipment is in place
- 3.2 Describe planned exercises, including their physical and technical demands
- 3.3 Teach effective warm up and cool down activities
- 3.4 Adapt exercises with suitable progressions and regressions according to client needs
- 3.5 Explain and demonstrate correct movements and techniques for performing gym based exercise (resistance, cardiovascular, flexibility) to clients and explain their purpose and expected results
- 3.6 Use instructional techniques to teach the correct technique for gym based exercise
- 3.7 Advise clients of safety considerations for gym based exercise equipment
- 3.8 Encourage feedback from clients to confirm their understanding of the exercises and to identify any difficulties

Task 4 - Supervise gym sessions

- 4.1 Observe client training sessions
- 4.2 Apply spotting techniques to ensure safety and enhance performance
- 4.3 Provide feedback and instructing points which are timely, clear and motivational
- 4.4 Provide on-going motivation and support to clients to encourage adherence
- 4.5 Recognise the signs and symptoms of overtraining and act accordingly

Task 5 - Monitor client progress, review and adapt gym programmes

- 5.1 Review last health screening and confirm with the client that nothing has changed, or redo health screening if necessary
- 5.2 Review the outcomes of working with clients and take account of client feedback
- 5.3 Identify when a review of clients' exercise programme is necessary
- 5.4 Reassess clients' fitness levels to determine the effectiveness of their current exercise programme
- 5.5 Review clients' specific fitness goals and other requirements
- 5.6 Modify clients' exercise programmes according to results of fitness reassessments and any updated fitness goals and requirements
- 5.7 Provide positive and constructive feedback to clients on their progress and any recommended changes

Knowledge and Understanding

Exercise professionals should know and understand:

- K1 Relevant legislative and organisational policies and procedures to support safe and effective exercise including safe use of equipment
- K2 Reasons for temporary deferral of exercise and referral to other professionals
- K3 How to observe and monitor gym clients to maintain safety and effectiveness of exercise
- K4 How to provide safe and effective demonstrations of a range of gym equipment
- K5 Effects of different exercise components on the major body systems to enable safe and appropriate exercise planning
- K6 A range of resistance exercises and exercise programmes to enable selection and implementation of appropriate programmes to improve or maintain the fitness of clients
- K7 How to plan to use a range of cardiovascular machines, resistance machines and free weights for client exercise
- K8 Principles of functional exercise and functional equipment
- K9 Principles of programme design:
 - FITT
 - Overload
 - Progression/ regression
 - Specificity
 - Rest
- K10 Fitness programme planning for improvement of health-related components of fitness:
 - body composition
 - muscle endurance
 - muscle strength
 - cardiorespiratory endurance
 - flexibility
- K11 Methods of monitoring exercise
- K12 Safe and effective alignment for a range of gym-based exercise positions to cover use of:
 - cardio-vascular machines,
 - resistance machines,
 - free weights
- K13 Training methods and consideration of intensity, programme types, sets and reps, circuits, matrices, super-sets, pre-fatigue and interval training, rest/recovery periods
- K14 Contraindications and precautions to participation in session, and suitable modification options for participants where the safety of the participant is not compromised
- K15 Exercises and programming requirements for:
 - flexibility:
 - dynamic or active range of motion
 - static
 - muscular endurance and strength:
 - balance and coordination
 - body weight
 - equipment
 - cardiorespiratory endurance
- K16 Manufacturer and exercise equipment specifications for safe use and techniques – CV equipment, resistance machines, free weights

- K17 Signs and symptoms of exercise intolerance
- K18 Motivational techniques and exercise adherence strategies.
- K19 Risk assessment and management relevant to exercise in the gym
- K20 The importance of reviewing a programme with a client and recommended intervals for reviews
- K21 How to collect client feedback
- K22 How to modify fitness programmes according to results of fitness reassessments and changing requirements
- K23 Evidence based sources of information on gym programming and importance of evidence based practice



GROUP C

Group Fitness Instructor Standards

C1. Conduct health screening

This standard covers how to identify the fitness requirements of clients through the use of a screening form and collecting information about exercise preferences, barriers to exercise and goal setting.

Performance Criteria

Exercise professionals should be able to:

Task 1 - Identify client fitness requirements

- 1.1 Question clients to confirm fitness goals, expectations and preferences
- 1.2 Confirm current and past physical activity participation
- 1.3 Describe available programmes, services and facilities relevant to client needs and expectations

Task 2 - Administer pre-exercise health screening questionnaire

- 2.1 Explain purpose of pre-exercise health screening questionnaire and risk stratification to client
- 2.2 Administer an industry standard pre-exercise health screening questionnaire to client
- 2.3 Discuss outcomes of pre-exercise health screening with client
- 2.4 Refer client to medical practitioner or other appropriate professionals for further appraisal as required

Task 3 - Advise benefits of fitness activities and exercise prescription

- 3.1 Explain benefits of fitness activities and fitness programmes
- 3.2 Advise client regarding suitability of relevant activities and programmes

Knowledge and Understanding

Exercise professionals should know and understand:

- K1 Policies and procedures for the collection, use and storage of personal client information
- K2 Ways of establishing rapport with different types of clients
- K3 The purpose and content of health screening questionnaires
- K4 Industry endorsed risk stratification models and procedures
- K5 Different types of information which can be collected from clients and methods of collection
- K6 How to analyse and interpret collected information so that client needs and goals can be identified

- K7 Typical contraindications to physical activity and how to respond to these
- K8 Correct methods of gathering, storing and disposing of client information
- K9 Professional boundaries and how to refer to other professionals
- K10 Medical conditions that require medical clearance or referral
- K11 Role of medical or allied health professionals in the referral processes
- K12 The impact of lifestyle behaviours on health and fitness and the benefits of exercise and physical activity
- K13 How to manage the expectations of clients
- K14 How to work with clients to develop, agree and record client goals
- K15 Why it is important to base goal setting on proper analysis of clients' needs
- K16 features and benefits of fitness facilities, exercise programmes and services
- K17 Contraindications and precautions to participation in health and fitness assessments
- K18 Signs and symptoms of exercise intolerance
- K19 Methods for measuring exercise intensity:
 - heart rate response
 - respiration rate response
 - rate of perceived exertion
 - work output
- K20 exercise adherence and behavioural change strategies: habits; intrinsic and extrinsic motivation; goal setting



C2. Deliver Pre-choreographed group exercise to music

This standard describes how to instruct pre-choreographed group exercise to music classes according to the training guidelines provided by the programme developer. Group exercise leaders will be using appropriately licenced music.

Performance Criteria

Exercise professionals should be able to:

Task 1 - Prepare for pre-choreographed group exercise to music class delivery

- 1.1 Select pre-designed exercise programme to meet the needs of participants
- 1.2 Confirm licensing and provider requirements of the programme
- 1.3 Confirm facility and resource requirements for programme delivery
- 1.4 Prepare to instruct exercise repertoire or choreography, using appropriate movement terminology and application of relevant anatomical and physiological principles
- 1.5 Access and use music according to training guidelines
- 1.6 rehearse movement sequences and choreography

Task 2 - Prepare participants for pre-choreographed exercise to music class

- 2.1 Confirm availability of area, assemble resources and prepare environment appropriately
- 2.2 Check equipment for maintenance requirements according to program guidelines, as required
- 2.3 Check health and safety considerations for equipment and facility
- 2.4 Confirm capacity to participate in session and modify as required to suit specific needs

Task 3 - Instruct pre-choreographed group exercise to music class

- 3.1 Deliver pre-session instructions, to include: verbal pre-screen, personal introduction, type of session, modification and recovery, spacing and organisation of equipment
- 3.2 Provide clear instructions according to programme requirements using safe and effective instructional techniques, including: demonstration and explanation of exercise, well-timed cueing, establishing rapport, teaching positioning, session organisation and formation, visual and verbal cueing
- 3.3 Demonstrate exercises, techniques and equipment, and monitor participation and performance of each participant
- 3.4 Incorporate appropriate movement sequences: combinations, movement breakdown techniques, use of learning curves as directed by the pre-designed programme

Task 4 - Manage pre-choreographed exercise to music class

- 4.1 Monitor exercise intensity during the session through: heart rate response, perceived rate of exertion, talk test and respond if client is in difficulty
- 4.2 Communicate clearly with participants using communication techniques: clear verbal communication, body language, mirror imaging, monitoring and encouraging session response, negotiation
- 4.3 Modify activity, as required to cater for a multi-level group according to program guidelines
- 4.4 Instruct a cool down and/or stretches as part of or suitable for the selected pre-designed exercise programme
- 4.5 Encourage group cohesion and manage conflicts as they arise

Task 5 - Evaluate a pre-choreographed group exercise to music class

- 5.1 Seek and acknowledge feedback from participants
- 5.2 Evaluate participant response and feedback
- 5.3 Evaluate own performance and identify areas needing improvement
- 5.4 Update session documentation
- 5.5 Maintain records of sessions according to program guidelines

Knowledge and Understanding

Exercise professionals should know and understand:

- K1 Relevant legislative and regulatory requirements regarding pre-choreographed group exercise to music classes:
- health and safety
 - duty of care
 - copyright
 - licensing
- K2 Organisational policies and procedures in regards to:
- pre-session screening
 - overcrowding
 - ventilation and/or climate control
 - hygiene
 - participant to instructor ratio
 - emergency
 - risk management
 - standards of personal presentation
 - participant's clothing and footwear
 - use, care and maintenance of equipment
 - venue hire
 - recording and reporting requirements
 - communication protocol
 - security
- K3 The preparation required to lead a group exercise session
- K4 How to adapt your plans, yourself, the equipment and facilities for the needs of the client
- K5 The needs and potential of the participants including reasons for and barriers to participation in the appropriate session
- K6 Different group exercise classes types/genres.
- K7 Different group exercise environments
- Gym based
 - Studio based
 - Water based
 - Sports hall
 - Outdoors
- K8 Signpost any participants whose needs and potential you cannot meet to other professionals
- K9 Objectives that meet the needs and potential of participants, consider the following:
- Exercise goals
 - Components of fitness
 - Client needs
 - Category of clients
 - Stage of fitness
 - Beginner
 - Intermediate
 - Advanced
 - Injury and medical status
 - Experienced/ inexperienced
- K10 Plan sessions and formats that will help all participants take part and achieve planned outcomes
- K11 For whom the session is suitable for, and for who it is not suitable for
- K12 Benefits of group exercise to music
- K13 Different types of pre-choreographed exercise programme and typical make up of each:
- Weight loss
 - Strength
 - Endurance
- K14 Instructional techniques to enable effective delivery and monitoring of session
- K15 Injury prevention strategies to maximise client participation in the programme

- K16 Potentially harmful practices to be avoided:
- hyperextension of joints
 - exercising while sick
 - exercising in extremes of temperature
 - ballistic movements
 - high impact movements for clients with incontinence or musculoskeletal conditions
- K17 Intervention strategies:
- stopping or modifying the exercise
 - modifying equipment or its use
- K18 Variations to pre-choreographed or prescribed group exercise to music classes:
- choreographed to music
 - with equipment
 - without equipment
- K19 Objectives of the phases of pre-choreographed group exercise to music classes:
- warm-up:
 - pulse raise
 - mobility
 - main cardiovascular workout:
 - using aerobic curve
 - pulse raise
 - main workout
 - build down
 - muscle strength and endurance
 - flexibility
 - cool down with or without stretching
- K20 Function and safety of equipment suitable for group exercise to music
- K21 Current industry guidelines relevant to pre-choreographed group exercise to music classes
- K22 Principles of exercise programme design:
- muscle action
 - loading and volume
 - exercise selection and order
 - rest periods
 - repetition velocity
 - frequency
- K23 The use of music in a group exercise to music session or group circuit session, with consideration of appropriate use of:
- beats per minute
 - rhythm
 - phrasing
 - volume
- K24 realistic timings of choreography for sessions, in regards to:
- add on
 - 32 count phrase
 - verse and chorus
 - layering

C3. Plan and instruct group exercise

This standard describes how to plan and instruct group exercise sessions. The standard focuses on the planning, selection, sequencing and progression of exercises, and instructing and monitoring clients to ensure safe conduct of activities.

Performance Criteria

Exercise professionals should be able to:

Task 1 - Collect and analyse participant information

- 1.1 Collect information required to plan group exercise sessions
- 1.2 Follow legal and ethical requirements for the security and confidentiality of client information
- 1.3 Determine appropriate group fitness class format

Task 2 - Plan group exercise session

- 2.1 Plan objectives for a group exercise session
- 2.2 Plan the class structure, which could include:
 - single peak,
 - twin peak,
 - interval,
 - steady state
- 2.3 Consider participant group characteristics and determine the expected fitness outcomes and session type for the client group
- 2.4 Select and sequentially order exercise movements, including appropriate regressions, progressions and modifications
- 2.5 Design exercise sequences, choreography as relevant, transitions and flow to meet desired class objectives
- 2.6 Select exercises that target desired health or skill related components of fitness
- 2.7 Plan appropriate phases of the session
- 2.8 Plan realistic timings and, if applicable, original choreography for sessions and sequence of choreography to suit session type, which could include:
 - add on,
 - 32 count phrase,
 - verse chorus,
 - layering
- 2.9 Provide safe and effective exercises appropriate to the needs and levels of the following client groups:
 - beginner,
 - intermediate,
 - advanced
- 2.10 If required, select and sequence music, according to duration, concepts and phases and type of session
- 2.11 If required access music, according to organisational policies and procedures and legal and regulatory requirements
- 2.12 Identify and plan for possible risks during the session
- 2.13 Document session plans

Task 3 - Prepare for group exercise sessions

- 3.1 Arrive in time to set up sessions, meet the clients punctually and make them feel welcome and at ease
- 3.2 Provide safe and appropriate equipment for sessions as appropriate
- 3.3 Organise sufficient space for safe exercise performance
- 3.4 Check clients' level of experience and ability, identifying any new clients
- 3.5 Confirm capacity to independently participate in session and modify as required to suit specific needs
- 3.6 Foster a sense of community among class participants
- 3.7 Explain the purpose and value of the session, including warm-up and cool-down
- 3.8 Describe the exercises, including physical and technical demands
- 3.9 Use warm up activities that are safe and effective for the clients

Task 4 - Instruct group exercise sessions

- 4.1 Observe client's performance throughout the session, changing position where necessary
- 4.2 Give explanations and demonstrations that are technically correct with safe and effective alignment of exercise positions
- 4.3 Build up exercises gradually
- 4.4 Use appropriate volume, pitch and voice projection with or without a microphone
- 4.5 Provide effective cueing
- 4.6 Ensure clients work to the structure and phrases
- 4.7 Vary the pace and speed of exercise to ensure safety and effectiveness
- 4.8 Keep to the planned timings for the session
- 4.9 Use appropriate teaching methods to correct technical errors, reinforce technique and improve performance
- 4.10 Use effective verbal and visual communication and employ mirroring
- 4.11 Adapt exercises with suitable progressions and regressions according to clients' needs
- 4.12 Give attention and encouragement to all clients and use motivational techniques to positively influence performance during exercise sessions and maximise exercise adherence
- 4.13 Recognise and respond to inappropriate client behaviour to effectively manage group cohesion

Task 5 - Bring group exercise sessions to an end

- 5.1 Allow sufficient time to end the session
- 5.2 End the session using cool down activities which are safe and effective for the clients
- 5.3 Give the clients an accurate summary of feedback on the session
- 5.4 Encourage clients to think about the session, ask questions, provide feedback, and identify their further needs
- 5.5 Make sure the clients have information about future sessions
- 5.6 Follow the correct procedures for checking and dealing with any equipment used
- 5.7 Leave the environment in a condition acceptable for future use

Task 6 - Evaluate group exercise sessions

- 6.1 Evaluate clients' responses and feedback
- 6.2 Identify:
 - how well the exercises met clients' needs,
 - how effective and motivational the relationship with the clients was,
 - how well the instructing style matched the clients' needs
- 6.3 Evaluate own performance
- 6.4 Identify potential improvements for future sessions
- 6.5 Identify how to improve personal practice in group exercise
- 6.6 Update session documentation

Knowledge and Understanding

Exercise professionals should know and understand:

For the whole standard

- K1 Relevant legislative and organisational policies and procedures to support safe and effective exercise including safe use of equipment
- K2 The principles of training and components of fitness in terms of their use in group exercise
- K3 The motivational needs of exercise clients in group fitness classes
- K4 Injury prevention strategies related to group exercise
- K5 The effect of levers, gravity, resistance and speed on exercise
- K6 The physical, psychological and social reasons for clients participating in group exercise
- K7 Methods of learning (eg visual, verbal) and their application to group fitness

Collecting and analysing information

- K8 The information which can be collected before a group exercise session including the needs and potential of the clients
- K9 How to collect and use client information to plan group exercise

Planning group exercise

- K10 Different objectives for a group exercise session, to include:
 - cardio-vascular fitness,
 - muscular fitness,
 - flexibility,
 - motor skills
- K11 A range of session types and exercises that are safe and appropriate for clients
- K12 Exercises that are safe and appropriate for clients (beginner, intermediate and advanced), including alternatives to potentially harmful exercises; safe and effective alignment of exercise positions
- K13 The purpose of exercises, how to break exercise/movements down to their component parts
- K14 Principles of exercise planning and repertoires to enable the selection and sequencing of exercises appropriate for beginner, intermediate and advanced clients
- K15 Equipment where used in group exercise, and its uses
- K16 If required, how to select speed and type of music as appropriate to the clients and phases of the class
- K17 If required how to select appropriate music for exercise sessions, with appropriate music beat, tempo volume, rhythm and phrasing
- K18 Choreographic methods, transitions and sequential exercise movements
- K19 The organisational, regulatory and legal requirements covering the use of music including music licensing
- K20 The principles involved, as applicable, in developing choreography for a group exercise session which may include:
 - add-ons,
 - pyramids,
 - holding patterns,
 - travelling,
 - organised action,
 - movement transitions
- K21 The suitability of speed and type of music for the clients and section of the class
- K22 Principles of exercise programme design
 - muscle action
 - loading and volume
 - exercise selection and order
 - rest periods
 - repetition velocity
 - frequency

K23 Phases of group exercise sessions

- warm up
 - pulse raise
 - Mobility
- main cardiovascular workout
 - Using aerobic curve
 - Pulse raise
 - Main workout
 - Build down
- muscle strength and endurance
- flexibility

K24 Time management as it relates to weighting of each component of the class

Preparing for a group exercise sessions

K25 Function and safety of equipment suitable for group exercise

K26 How to prepare self, equipment and space for group exercise sessions

K27 The purpose and value of the warm up and safe and effective warm up activities for group exercise

Instructing group exercise sessions

K28 Appropriate instructing positions and how to observe clients throughout the session

K29 Safe and effective alignment of exercise positions

K30 How to build exercises up gradually, to include:

- layering techniques,
- holding patterns

K31 Effective methods of combining movements

K31 Principles of exercise instruction to ensure a safe and effective session

K33 If required the different methods of adapting exercise to music to ensure appropriate progression and regression

K34 Teaching methods and how to correct technical errors

K35 Teaching strategies (e.g. slow-to-fast, repetition reduction, spatial, part-to-whole, simple-to-complex) used to facilitate participant learning

K36 Domains and stages of learning

K37 Learning styles

K38 Instructional and motivational techniques suitable for group exercise to support client adherence to exercise

K39 Appropriate communication skills

K40 Effective teaching and communication methods for correcting exercise technique, balance and movement

K41 Teaching techniques appropriate to a group fitness class

K42 Methods of voice projection and effective use of volume and pitch of voice

K43 When music is used determine the suitability of speed and type of music for the clients and section of the class

K44 Principles of effective cueing and how to work to the structure and phases with or without music

K45 Safety factors during a session and how to identify any new risks

K46 Criteria requiring immediate termination of exercise participation

K47 The principles of group behaviour management during exercise sessions

Bringing a group exercise session to an end

K48 The purpose and value of the cool down and safe and effective cool down activities for group exercise sessions

K49 Why it is important to get feedback from clients on group exercise sessions

K50 How to ensure clients can give feedback and receive information about future sessions

Evaluating a group exercise session

K51 Principles of evaluation and self-reflection

K52 How to use session evaluation to improve future sessions

C4. Plan and instruct water-based fitness

This standard describes how to plan, deliver and evaluate water-based fitness activities. The standard covers knowledge of aquatic exercise environments, their benefits and limitations, exercise techniques, and related equipment, exercise progressions, and stretching used in water-based classes.

Performance Criteria

Exercise professionals should be able to:

Task 1 - Collect and analyse information to plan water-based fitness sessions

- 1.1 Screen clients for health status and water familiarisation
- 1.2 Collect the information required to plan a water-based fitness class to include client characteristics and needs
- 1.3 Refer any client whose needs and potential cannot be met to another professional
- 1.4 Recommend clients seek advice from a health professional if necessary to clarify any concerns which may affect safe participation in water-based fitness
- 1.5 Follow legal and ethical requirements for the security and confidentiality of client information

Task 2 - Plan water-based fitness sessions

- 2.1 Plan objectives for water-based fitness
- 2.2 Determine the expected fitness outcome and session type for the client group
- 2.3 Plan the phases of the exercise session to include:
 - warm up
 - pulse raising,
 - dynamic stretching
 - main CV workout using the aerobic curve
 - pulse raiser,
 - main workout,
 - build down
 - muscular conditioning,
 - cool down and flexibility
- 2.4 Select safe and appropriate water-based exercises to help achieve expected fitness outcome in terms of intensity, duration, alternatives, and suitability for the expected clients
- 2.5 Develop session plans in relation to expected clients, goals and their level of ability
- 2.6 Ensure session plans describe overall class structure, class components, timings, sequence of class components, and safety considerations
- 2.7 Determine appropriate instructional techniques
- 2.8 Include the use of music where appropriate to the sessions' objectives – type, volume, speed, suitability to expected clients, choreography where relevant and take account of legal aspects of using music
- 2.9 Analyse site aspects and pool design and identify issues which impact on the conduct of activities.
- 2.10 Identify and plan for possible risks for the session

Task 3 - Prepare for water-based fitness sessions

- 3.1 Arrive in time to set up sessions, meet the clients punctually and make them feel welcome and at ease
- 3.2 Prepare self to teach sessions
- 3.3 Select appropriate client equipment and ensure it is in good working order
- 3.4 Allocate sufficient pool space and prepare instructor and safety resources for sessions
- 3.5 Help clients feel welcome and at ease in the pool environment
- 3.6 Check clients' level of experience and ability, identifying any new clients
- 3.7 Check clients' physical condition, whether they have an illness or injury and advise individuals of any reasons why they should not participate in the exercises where appropriate
- 3.8 Explain the purpose and value of the exercises, including warm-up and cool-down

- 3.9 Explain the exercises, including physical and technical demands
- 3.10 Advise clients where to position themselves in the pool
- 3.11 Use warm up activities that are safe and effective for the clients

Task 4 - Introduce clients to water-based fitness

- 4.1 Adopt appropriate positions to observe all clients and respond to their needs
- 4.2 Demonstrate water familiarisation techniques and skills to assist clients as required
- 4.3 Give explanations and demonstrations that are technically correct with safe and effective alignment and timing and movement quality of exercise positions that clearly translate to clients in the water
- 4.4 Demonstrate and instruct correct use of equipment during water-based fitness sessions
- 4.5 Demonstrate transferability of hydrodynamic principles and emulate water movement patterns when instructing from pool deck

Task 5 - Instruct water-based fitness sessions

- 5.1 Develop exercises gradually
- 5.2 Vary the pace and speed of exercise to ensure safety and effectiveness in the water
- 5.3 Keep to the timings for the session
- 5.4 Incorporate, where appropriate, the effective use of music
- 5.5 Give verbal instructions including volume, pitch and voice projection with or without a microphone
- 5.6 Use appropriate teaching methods to correct and reinforce technique
- 5.7 Provide feedback and instructing points which are timely, clear and motivational
- 5.8 Monitor exercise intensity, technique and safety of clients during the session and address difficulties as required according to client responses
- 5.9 Adapt exercises with suitable progressions and regressions according to client needs
- 5.10 Apply appropriate motivational techniques to encourage clients

Task 6 - Maintain client safety during water-based fitness sessions

- 6.1 Ensure clients exercise safely
- 6.2 Recognise the signs and signals of a client in difficulty and provide basic water assistance according to accepted best practice principles
- 6.3 Recognise and respond to inappropriate client behaviour to effectively manage group cohesion

Task 7 - Bring water-based fitness sessions to an end

- 7.1 Allow sufficient time to end the session according to clients' needs
- 7.2 Use cool down activities that are safe and effective for the clients
- 7.3 Close sessions in accordance with class plan
- 7.4 Give the clients an accurate summary of feedback on the session
- 7.5 Encourage clients to reflect on the session; ask questions; provide feedback; identify further needs
- 7.6 Make sure the clients have information about future sessions
- 7.7 Follow the correct procedures for checking and dealing with any equipment used
- 7.8 Leave the environment in a condition acceptable for future use

Task 8 - Evaluate water-based fitness sessions

- 8.1 Evaluate client response and feedback
- 8.2 Identify:
 - how well the exercises met clients' needs,
 - how effective and motivational the relationship with the clients was,
 - how well the instructing style matched the clients' needs
- 8.3 Evaluate own performance according to planned outcomes
- 8.4 Identify potential improvements for future sessions
- 8.5 Identify how to improve personal practice in water-based fitness instruction

Knowledge and Understanding

Exercise professionals should know and understand:

For the whole standard

- K1 Relevant legislative and organisational policies and procedures to support safe and effective exercise including safe use of equipment
- K2 Relevant cultural issues or norms related to water-based exercise
- K3 The principles of training and components of fitness in terms of their use in water-based fitness
- K4 The motivational needs of exercise clients in water-based fitness classes
- K5 The physical, psychological and social reasons for clients participating in water-based fitness
- K6 Properties of water including:
- mass,
 - density
 - viscosity
 - hydrostatic pressure
- K7 Forces that act upon the body in water including:
- buoyancy
 - resistance
 - turbulence
 - propulsion
 - inertia
- K8 The effect water has on the body for example:
- static and travelling balance,
 - greater range of joint movement,
 - mobility,
 - hyperbaric pressure on the chest
- K9 Water-based equipment including:
- kickboards,
 - flotation belts and vests,
 - flippers,
 - balls,
 - dumbbells,
 - paddles,
 - webbed gloves,
 - resistance bands,
 - clothing and sun protection,
 - ankle cuffs,
 - shoes,
 - water-resistant heart rate monitors and stop watches
- K10 Pool instructor and safety resources as appropriate to the facility including:
- ropes,
 - reach poles,
 - flotation devices,
 - whistle,
 - access to hydration,
 - non-slip pool deck instructor mat,
 - instructor aqua frame,
 - microphone and sound system
- K11 Water familiarisation skills
- K12 The physiological and biomechanical effects of immersion in water in terms of:
- heart rate,
 - respiration,
 - blood pressure,
 - heat conductance,
 - energy expenditure

- K13 Methods for modifying the body's resistance in water including:
- inertia,
 - acceleration,
 - speed,
 - lever length,
 - range of motion,
 - surface area presented to water (such as hand position),
 - travelling,
 - current generation and use
- K14 The benefits and limitations of water-based exercise versus land-based exercise in terms of:
- impact,
 - muscle balance,
 - energy expenditure,
 - movement speed/control,
 - range of motion,
 - muscle soreness,
 - strength development,
 - endurance,
 - posture,
 - barriers to effective instruction
- K15 The importance of the following environmental factors when planning sessions:
- water temperature
 - depth,
 - humidity,
 - air temperature
- K16 The factors to consider when including non-swimmers in a session
- K17 How water-based exercise can assist injury rehabilitation
- K18 The roles and responsibilities of:
- pool owners and management,
 - clients,
 - aqua fitness instructors,
 - pool lifeguards,
 - pool maintenance staff

Collecting and analysing information

- K19 The principles of screening clients prior to water-based exercise
- K20 The information which can be collected before a water-based fitness class including the needs and potential of the clients
- K21 How to collect and use client information to plan water-based exercise
- K22 Concerns or conditions commonly considered as an impediment to safe participation in planned water-based activities
- K23 The reasons for referring clients to other professionals and temporary deferral of exercise

Planning water-based fitness

- K24 How to ensure the safety and welfare of clients appropriate to the environment, including:
- entry and exit to the water,
 - Thermoregulation,
 - continued visual contact with clients,
 - use of electrical equipment,
 - methods/movements to maintain or regain balance of their clients in the water
- K25 The different purpose/objectives of water-based fitness activities including:
- different types of fitness,
 - balance and coordination,
 - drills, fun and aquatic games,
 - social,
 - movement functionality

- K26 The exercise techniques used in water fitness classes in terms of the muscle groups used, the exercise purpose, and key technique points
- K27 Exercise progressions for different exercise techniques
- K28 Water-based fitness activities which may include:
- interval,
 - circuit,
 - drills,
 - exercises,
 - games,
 - choreographed sessions to music,
 - deep water session,
 - equipment based
- K29 How to use client information to plan water-based exercise
- K30 Hydrodynamic principles to enable safe and effective water-based exercise
- K31 The effect of the use of shallow and deep water when planning water-based fitness sessions
- K32 Stretches and stretching movements used in water-based fitness sessions in terms of their purpose, execution and application
- K33 The effects of thermoregulation on class structure particularly in relation to different age groups
- K34 How to use music to enhance water-based exercise including selection of the speed and type of music for the clients and phase of the class
- K35 The legal requirements covering the use of music
- K36 The effect of pacing and speed of exercises

Preparing for water-based fitness sessions

- K37 The correct preparation of equipment used in water-based sessions
- K38 How to prepare self for a water fitness class
- K39 The purpose and value of the warm up and safe and effective warm up activities for water-based fitness

Delivering water-based fitness sessions

- K40 Appropriate instructing positions and how to observe clients throughout the session
- K41 Different instructional techniques which can be used including:
- formations,
 - instructor preservation,
 - visual and verbal cueing,
 - mirror imaging,
 - emulating water movements,
 - anchored or weighted movement,
 - active or energetic movement,
 - propulsion or turbulent actions ,
 - suspended movements in deep, chest deep or shallow water
- K42 Effective methods of combining movements
- K43 Different methods of adapting water-based exercises to ensure appropriate progression and regression
- K44 Motivational techniques to provide appropriate encouragement and feedback to clients
- K45 Appropriate communication skills
- K46 How to develop client co-ordination by building exercises and movements up gradually
- K47 Specific factors which can affect safety during water-based sessions
- K48 The principles of group behaviour management during water-based sessions

Bringing water-based fitness sessions to an end

- K49 The purpose and value of the cool down and safe and effective cool down activities for water-based fitness
- K50 How to ensure clients can give feedback and receive information about future sessions

Evaluating water-based fitness sessions

- K51 Principles of evaluation and self-reflection
- K52 How to use session evaluation to improve future sessions

GROUP D

Personal Trainer Standards

D1. Conduct client consultations and fitness assessments

This standard describes how to hold a consultation interview with a client and how to carry out client fitness assessments.

Performance Criteria

Exercise professionals should be able to:

Task 1 - Hold consultation interview with client

- 1.1 Arrange client interview
- 1.2 Obtain health/ medical history, informed consent and where needed medical clearance
- 1.3 Discuss modifiable risk factors for cardiovascular disease and risk reduction with clients, where relevant
- 1.4 Review pre-exercise health screening, and health assessment procedures as required.
- 1.5 Discuss client health-related goals and acquire additional client information as required.
- 1.6 Explain to clients why fitness assessments are relevant to an individualised exercise programme and how and why this information will be used and recorded
- 1.7 Choose fitness assessments appropriate to clients' current fitness capacity and readiness to participate
- 1.8 If necessary, recommend clients seek medical assistance before taking part in fitness assessments
- 1.9 Explain the aims of planned fitness assessments to clients and what these assessments will involve
- 1.10 Explain clients' rights and ensure they provide consent to take part in fitness assessments

Task 2 - Plan and conduct fitness assessments

- 2.1 Determine tools and methods to conduct health and fitness assessments.
- 2.2 Plan health assessments relevant to the client, taking account the following:
 - cardiorespiratory endurance (submaximal oxygen consumption)
 - blood pressure
 - range of movement/flexibility
 - strength
 - weight
 - height
 - body mass index
 - waist to hip ratio
 - girth measurements
- 2.3 Conduct required fitness assessments in a safe and timely manner
- 2.4 Carry out postural assessment to include static and dynamic postural analysis, optimal postural alignment, postural deficiencies/ deviations

- 2.5 Use the appropriate fitness appraisal equipment safely:
 - tape measure
 - scales
 - sit and reach tools
 - bicycle, treadmill or rowing ergometer
 - heart rate monitor
 - blood pressure equipment – sphygmomanometer
 - stop watch
- 2.6 Select and use communication techniques that encourage and support the client
- 2.7 Monitor client for signs and symptoms of intolerance and discontinue fitness assessments as required
- 2.8 Process assessment results according to protocol and calculation requirements
- 2.9 Analyse the results of fitness assessments
- 2.10 Develop a client profile and record outcomes of appraisal and exercise programme recommendations.
- 2.11 Record recommendations for the client's exercise programme

Task 3 - Provide feedback to clients about their current levels of fitness

- 3.1 Communicate assessment data to clients using terminology appropriate to the client's level of understanding
- 3.2 Explain the results of the fitness assessments and the implications for exercise programme design
- 3.5 Make informed recommendations to clients on appropriate exercise programmes
- 3.6 Refer any clients whose needs and potential they cannot meet to an appropriately qualified professional
- 3.7 Maintain client confidentiality
- 3.8 Confirm with clients that the assessment results were understood

Knowledge and Understanding

Exercise professionals should know and understand:

- K1 Relevant legislation and regulatory requirements relevant to:
 - fitness assessments and collection of client information
 - principles of informed consent
 - negligence and duty of care
 - appropriate collection and storage of client information
 - application of legal and ethical limitations of own role
 - health and safety
- K2 Organisational policies and procedures relevant to:
 - fitness assessments and collection of personal information
 - conducting fitness appraisals
- K3 Industry endorsed client pre-exercise health screening processes
- K4 industry endorsed risk stratification procedures, exercise implications and referral requirements
- K5 Features and benefits of fitness facilities, exercise programs and services
- K6 Role of medical or allied health professionals for referral processes
- K7 Health-related components of fitness:
 - body composition
 - muscle endurance
 - muscle strength
 - cardiovascular endurance
 - flexibility
- K8 Contraindications and precautions to participation in fitness assessments
- K9 Benefits of fitness appraisal procedures and testing
- K10 Anthropometric measurements and body composition techniques
- K11 Fitness testing protocols
- K12 How to compare tests for each exercise variable to determine suitability, including suitability for various client types, cost, accessibility, validity, reliability, specificity
- K13 Appropriate sequencing of fitness assessments
- K14 How to carry out postural assessment to include static and dynamic postural analysis, optimal postural alignment, postural deficiencies/ deviations
- K15 Effective methods for assessing joint position, stability and mobility to determine their impact on posture and movement

- K16 Appropriate methods for assessing movement and balance
- K17 Variables that affect acute physiological responses to exercise
- K18 Signs and symptoms of exercise intolerance
- K19 When to terminate fitness assessments
- K20 Interpretation of results from the following fitness assessments:
- cardiorespiratory endurance (maximal and sub-maximal oxygen consumption)
 - blood pressure
 - range of movement/flexibility
 - strength
 - weight
 - height
 - body mass index
 - waist to hip ratio
 - girth measurements
 - skin fold measurements
- K21 Methods for measuring exercise intensity:
- heart rate response
 - respiration rate response
 - rate of perceived exertion
 - work output
- K22 Products and services available in the fitness industry that could be used to meet client goals
- K23 Use of fitness industry standard appraisal equipment suitable for assessing health-related components of fitness:
- heart rate monitor
 - tape measure
 - scales
 - sit and reach tools
 - bicycle, treadmill, rowing ergometer or step-up box
 - sphygmomanometer
 - stop watch
- K24 Methods of communicating results to clients
- K25 How to use the results of fitness assessments in programme design
- K26 The types of errors that can occur during exercise testing
- K27 Methods to improve the validity and reliability of testing for exercise clients
- K28 The impact of poor validity and reliability on exercise testing results in relation to exercise client motivation and programme design



D2. Apply the principles of exercise science to programme design

This standard describes how to utilise a broad knowledge of exercise science principles in exercise programme design and fitness training. The standard covers the main areas of musculoskeletal anatomy, biomechanics and physiology

Performance Criteria

Exercise professionals should be able to:

Task 1 - Apply knowledge of musculoskeletal anatomy to programme design

- 1.1 Apply knowledge of skeletal anatomy to exercise planning, programming and instruction
- 1.2 Apply knowledge of the integrated monitoring and control of skeletal muscle contraction by the nervous system to exercise planning, programming and instruction
- 1.3 Apply knowledge of the structure, range of motion and function of muscles, muscle groups and directional terms to exercise planning, programming and instruction

Task 2 - Apply knowledge of biomechanics to programme design

- 2.1 Analyse and apply the forces acting on the body during exercise and basic mechanical concepts to exercise
- 2.2 Use the common terms used to qualify the basic principles of biomechanics when instructing fitness activities
- 2.3 Use the lever systems in the human body and their role in movement and stability to provide safe and effective exercises for clients
- 2.4 Use resistance equipment to alter the force required by muscles and affect joint stability when developing programs and instructing fitness activities
- 2.5 Take into account the effect of changes in lever length on muscle force output in both anatomical and mechanical lever when instructing fitness activities

Task 3 - Apply knowledge of physiology to programme design

- 3.1 Apply knowledge of the structure and function of the cardiovascular system to exercise
- 3.2 Apply knowledge of the structure, processes and function of body energy systems involved in the storage, transport, and utilisation of energy
- 3.3 Apply knowledge of the physiological responses of the human body to physical activity and exercise
- 3.4 Apply knowledge of the physiological adaptations and weight bearing of the human body to regular exercise to exercise planning, programming and instruction
- 3.5 Apply knowledge of the physiological responses to physical activity in various environmental conditions to exercise planning, programming and instruction

Knowledge and Understanding

Exercise professionals should know and understand:

Musculoskeletal anatomy

- K1 Joints in the skeleton
- K2 Function and effects of exercise on joints
- K3 The structure and function of the skeleton
- K4 Classification and structure of bones
- K5 Function and effects of exercise on bones
- K6 Classification of anatomical planes of movement: frontal, sagittal, transverse
- K7 Classification of anatomical terms of location: superior and inferior, anterior and posterior, medial and lateral, proximal and distal
- K8 Classification and structure of muscles
- K9 Function and effects of exercise on muscles
- K10 Cellular structure of muscle fibres
- K11 Sliding filament theory

- K12 Effects of different types of exercises on muscle fibre type
- K13 Muscle attachment sites for the major muscles of the body
- K14 Structure, range of motion and function of muscles, muscle groups and directional terms
- K15 Location and function of skeletal muscle involved in physical activity
- K16 The relationship between muscles and fascia
- K17 Anatomical axis and planes with regard to joint actions and different exercises
- K18 Joint actions brought about by specific muscle group contractions
- K19 Joints/joint structure with regard to range of motion/movement and injury risk
- K20 Joint movement potential and joint actions
- K21 The specific roles of:
 - the central nervous system (CNS),
 - the peripheral nervous system (PNS) including somatic and autonomic systems
- K22 Nervous control and transmission of a nervous impulse
- K23 Structure and function of a neuron
- K24 Role of a motor unit
- K25 Function of muscle proprioceptors and the stretch reflex
- K26 Reciprocal inhibition and its relevance to exercise
- K27 The neuromuscular adaptations associated with exercise/training
- K28 The benefits of improved neuromuscular coordination/efficiency to exercise performance

Biomechanics

- K29 The forces which act on the body during exercise
- K30 Common biomechanical terms
- K31 The lever system in the body
- K32 The structure and function of the stabilising ligaments and muscles of the spine
- K33 Curvatures of the spine: lordosis, scoliosis, kyphosis
- K34 The local muscle changes that can take place due to insufficient stabilisation
- K35 The potential effects of poor posture on movement efficiency
- K36 The potential problems that can occur as a result of postural deviations
- K37 The benefits, risks and applications of the following types of stretching: static (passive and active), dynamic
- K38 Proprioceptive neuromuscular facilitation
- K39 Different exercises that can improve posture

Physiology

- K40 The function of the heart valves
- K41 Coronary circulation
- K42 Short and long term effects of exercise on blood pressure, including the valsalva effect
- K43 The cardiovascular benefits and risks of endurance/aerobic training
- K44 Blood pressure classifications and associated health risks
- K45 The contribution of energy according to:
 - duration of exercise/activity being performed
 - type of exercise/activity being performed
 - intensity of exercise/activity being performed
- K46 The by-products of the three energy systems and their significance in muscle fatigue
- K47 The effect of endurance training/advanced training methods on the use of fuel for exercise
- K48 Physiological responses of the human body to physical activity and exercise
- K49 Cardiovascular and respiratory adaptations to endurance/aerobic training
- K50 The short and long term effects of exercise on blood pressure
- K51 The effects of exercise on bones and joints including the significance of weight bearing exercise
- K52 Delayed onset of muscle soreness (DOMS)
- K53 Exercises or techniques likely to cause delayed onset of muscle soreness
- K54 The short and long term effects of different types of exercise on muscle
- K55 The benefits and limitations of different methods of monitoring exercise intensity including: the talk test, Rate of Perceived Exertion (RPE)
- K56 Heart rate monitoring and the use of different heart rate zones
- K57 Physiological responses to physical activity in various environmental conditions

D3. Apply the principles of nutrition and weight management within an exercise programme

This standard describes how to integrate nutrition and weight management goals into an exercise programme.

The standard covers collecting information from clients and setting goals relevant to nutrition and weight management, and integrating these within an exercise programme to achieve these goals.

Nutrition can be defined as the process by which living things receive the food necessary for them to grow and be healthy. Nutrition is a critical part of health and development. Better nutrition is related to improved infant, child and maternal health, stronger immune systems, safer pregnancy and childbirth, lower risk of non-communicable diseases (such as diabetes and cardiovascular disease), and longevity.

Performance Criteria

Exercise professionals should be able to:

Task 1 - Collect and analyse nutrition and weight management information

- 1.1 Collect information needed to provide clients with appropriate healthy eating and nutritional advice
- 1.2 Measure the body composition of clients where appropriate
- 1.3 Determine clients' daily energy requirements
- 1.4 Analyse collected information including nutritional needs and preferences in relation to the clients' current status and nutritional goals
- 1.5 Work within scope of practice as an exercise professional in terms of providing diet and nutrition guidance to exercise clients
- 1.6 Follow legal and ethical requirements for the security and confidentiality of client information

Task 2 - Plan how to apply the principles of nutrition and weight management within an exercise programme

- 2.1 Agree with clients short-, medium- and long-term nutritional goals appropriate to their needs
- 2.2 Access and make use of evidence-based sources of information and advice in establishing nutritional goals with clients
- 2.3 Ensure that the nutritional goals support and integrate with other programme components
- 2.4 Identify potential barriers to clients achieving goals and identify and agree strategies to prevent non-compliance or relapse
- 2.5 Record information about clients and their nutritional goals in an approved format
- 2.6 Identify when clients need referral to a medical professional or qualified nutritionist/dietician
- 2.7 Identify and agree review points

Task 3 - Apply the principles of nutrition and weight management within an exercise programme

- 3.1 Monitor, evaluate and review the clients' progress towards their nutrition and weight management goals
- 3.2 Apply body-composition management guidelines to develop an exercise plan relevant to the clients' goals and fitness levels
- 3.3 Utilise the principles of balanced nutrition to provide healthy eating advice for clients
- 3.4 Outline healthy eating options and hydration requirements for the exercise plan to clients
- 3.5 Provide current and accurate general healthy eating advice from national or international best practice guidelines appropriate to the needs and goals of clients and recognise and refer situations outside own scope of practice to other professionals
- 3.6 Discuss and confirm the exercise plan and healthy eating advice with clients
- 3.7 Apply principles of motivation and behaviour modification to encourage exercise and healthy eating adherence

Task 4 - Modify and review nutrition and weight management strategies

- 4.1 Determine the appropriate exercise modifications or changes to healthy eating advice in conjunction with relevant medical or allied health professionals
- 4.2 Communicate proposed changes to the exercise plan or healthy eating advice and reason for any change to clients
- 4.3 Reappraise clients' body composition at agreed stages of the program
- 4.4 Review client short and long term goals and exercise plan

Knowledge and Understanding

Exercise professionals should know and understand:

- K1 Evidence-based recommendations for nutritional strategies for a range of fitness goals
- K2 Types of information which can be collected from clients:
 - personal goals,
 - lifestyle,
 - medical history,
 - physical activity history,
 - diet history,
 - food preferences,
 - supplement use,
 - nutritional knowledge,
 - attitudes and motivation,
 - stage of readiness,
 - medications
- K3 Appropriate methods and protocols for nutritional assessments and collecting general information about eating habits from clients
- K4 Typical nutritional goals of clients:
 - healthy eating,
 - weight management,
 - improved fitness,
 - improved self-image,
 - improved health,
 - fat loss,
 - muscle gain
- K5 How to use body composition appraisal techniques covering:
 - weight,
 - height,
 - hip circumference,
 - waist circumference,
 - skin folds,
 - body mass indices
 - electronic means of identifying body composition
- K6 Benefits and limitations of body composition appraisal techniques
- K7 Body composition measurement methods and the relationship between body composition, fat distribution and health to enable the development of realistic and achievable exercise plans and healthy eating advice aligned to client needs and targets
- K8 Healthy eating advice to include:
 - general healthy eating principles,
 - dietary guidelines and recommendations – from approved sources
- K9 Management of body composition in terms of:
 - metabolism,
 - energy expenditure,
 - energy intake,
 - balance between energy intake and energy expenditure,
 - changes to body composition,
 - muscle gain
 - effects of hormones on body composition
- K10 How to analyse and interpret collected information so that clients' needs and nutritional goals can be identified
- K11 How to interpret information gained from methods used to assess body composition and health risk in relation to weight
- K12 Principles of balanced nutrition:
 - energy balance,
 - recommended daily intake of nutrients,
 - fuel for exercise,
 - fuel for minimising post-exercise fatigue and maximising recovery,
 - hydration levels,
 - food groups,
 - dietary guidelines,
 - essential nutrients,
 - food labelling and preparation

- K13 The relationship between healthy eating options and current dietary guidelines for a balanced diet to enable the provision of accurate information to clients
- K14 Principles of nutrition for sports performance
- K15 Structure and function of the digestive system and the effect of healthy eating on other major body systems
- K16 Factors that influence fat-loss response to exercise to enable effective goal setting
- K17 Professional boundaries and the role and limitations of exercise professionals in providing healthy eating information and situations requiring advice from suitably qualified medical or allied health professionals
- K18 Guidelines for developing exercise plans to change body composition
- K19 Structure and function of the digestive system
- K20 The meaning of key nutritional terms including:
- diet,
 - healthy eating,
 - nutrition,
 - balanced diet,
 - body composition
- K21 How the body uses and metabolises:
- macro nutrients
 - micro nutrients
- K22 The main food groups and the nutrients they contribute to the diet
- K23 The calorific value of macro nutrients
- K24 Food labelling information
- K25 The relationship between nutrition, physical activity, body composition and health including:
- links to disease/disease risk factors,
 - cholesterol ,
 - types of fat in the diet
- K26 Relevant nutritional guidelines
- K27 How to access reliable sources of nutritional information and distinguish between credible and non-credible sources
- K28 The importance of communicating health risks associated with weight loss fads and popular diets to clients
- K29 The potential health and performance implications of severe energy restriction, weight loss and weight gain
- K30 How to deal with clients at risk of nutritional deficiencies
- K31 Risks of providing nutritional information to specific population clients, including pregnant women, underweight, overweight, obese, diabetic, people with food allergies
- K32 How external factors can impact on an exercise participants nutritional needs, including: age, gender, ethnicity, culture, socio-economic status, lifestyle, pregnancy
- K33 Safety, effectiveness and contraindications relating to supplementation
- K34 Why detailed or complex dietary analysis that incorporates major dietary change should always be referred to a medical professional such as a Registered Dietician
- K35 The role of carbohydrate, fat and protein as fuels for aerobic and anaerobic energy production
- K36 The components of energy expenditure and the energy balance equation
- K37 Energy expenditure for different physical activities
- K38 How to estimate energy requirements based on physical activity levels and other relevant factors
- K39 The nutritional requirements and hydration needs of clients engaged in physical activity
- K40 Basic dietary assessment methods
- K41 How to recognise the signs and symptoms of disordered eating and healthy eating patterns
- K42 The role of health professionals in providing and applying nutritional information and advice to clients
- K43 The dangers of providing inappropriate nutrition advice to clients
- K44 The circumstances in which a client should be recommended to visit their GP about the possibility of referral to a Registered Dietician
- K45 The barriers which may prevent clients achieving their nutritional goals
- K46 How to apply basic motivational strategies to encourage healthy eating and prevent non-compliance or relapse
- K47 The need for reappraisal of clients' body composition and other relevant health parameters at agreed stages of the programme

D4. Design personal training programmes

This standard describes how to design a personal training programme with clients. The standard covers:

- analysing information and agreeing goals with clients
- planning a personal training programme and designing an exercise plan.

Performance Criteria

Exercise professionals should be able to:

Task 1 - Analyse information and agree goals with clients

- 1.1 Analyse information collected about the client
- 1.2 Identify any barriers to participation and encourage clients to find a solution
- 1.3 Agree with clients their needs, expectations, preferences and readiness to participate
- 1.4 Work with clients to agree short, medium and long-term goals appropriate to their needs
- 1.5 Develop objectives for the programme and each phase of the programme, in consultation with clients
- 1.6 Record the agreed goals in a format that is clear to clients, the personal trainer and others who may be involved in the programme
- 1.7 Identify and agree strategies to prevent drop out or relapse
- 1.8 Agree how to maintain contact with clients between sessions

Task 2 - Plan personal training programmes

- 2.1 Plan specific outcome measures, stages of achievement and exercises/physical activities that are appropriate to clients' goals and level of fitness
- 2.2 Make sure exercises/physical activities are consistent with accepted good practice
- 2.3 Plan for the achievement of short-, medium- and long-term goals
- 2.4 Plan and agree a progressive timetable of sessions with clients
- 2.5 Agree appropriate evaluation methods and review dates
- 2.6 Identify the resources needed for the programme, including the use of environments not designed for exercise
- 2.7 Explain and agree the demands of the programme with clients
- 2.8 Ensure the components of fitness are built into the programme
- 2.9 Ensure effective integration of all programme exercises/physical activities and sessions
- 2.10 Provide alternatives to the programmed exercises/physical activities if clients cannot take part as planned
- 2.11 Record plans in a format that will help to implement the programme
- 2.12 Identify the need for support personnel within the programme

Task 3 - Plan components of personal training programmes

- 3.1 Plan a resistance programme that matches a client's documented:
 - goals and preferences,
 - current strength status and movement capabilities,
 - injury profile,
 - exercise risk factors,
 - possible barriers
- 3.2 Plan a cardiovascular programme that matches a client's documented:
 - goals and preferences,
 - current cardiovascular fitness,
 - injury profile,
 - exercise risk factors
 - possible barriers
- 3.3 Outline the various types of conditioning appropriate to client goals and fitness levels

Task 4 - Present and agree personal training programmes with clients

- 4.1 Present an exercise programme to a client and gain endorsement and commitment to the programme and planned client tasks
- 4.2 Ensure the client's overall objective/goal is allocated to a date that is achievable and challenging, and is agreed to by the client
- 4.3 Plan for providing motivation and encouragement to clients during the programme
- 4.4 Describe the physiological changes and anatomical changes that occur with regular participation in the specific programme to clients
- 4.5 Identify the smaller goals that must be achieved for successful attainment of the overall goal of the client and that these are allocated to timeframes against a calendar, prioritised and agreed with the client
- 4.6 Demonstrate an awareness of clients' needs, objectives and exercise likes and dislikes when writing exercise plans
- 4.7 Design an exercise plan format and structure that is appropriate to the client and the specific target adaptation
- 4.8 Use the programming principles of planning for specific fitness adaptations when writing fitness exercise plans
- 4.9 Identify and agree barriers relating to the activities required to achieve the exercise plan and record these with possible intervention strategies

Knowledge and Understanding

Exercise professionals should know and understand:

Collecting information about clients

- K1 How to establish rapport with clients and the communication skills needed for effective personal training
- K2 The importance of showing empathy and being sensitive to clients' goals and current stage of readiness
- K3 How to decide what information to collect about clients
- K4 How to collect information using a variety of methods:
 - interview,
 - questionnaire,
 - observation,
 - physical/fitness assessments
- K5 The types of information to collect before designing an exercise programme including:
 - personal goals,
 - lifestyle,
 - medical history,
 - physical activity history,
 - physical activity likes and dislikes,
 - attitude,
 - motivation to participate and barriers to participation,
 - current fitness level,
 - stage of readiness,
 - posture and alignment,
 - functional ability
- K6 The legal and ethical implications of collecting client information, including:
 - confidentiality,
 - informed consent,
 - data protection
- K7 Why it is important to collect accurate information about clients
- K8 The strengths and weaknesses of the various methods of collecting information for different types of clients
- K9 How to screen clients prior to a personal training programme
- K10 Formats for recording information
- K11 How to interpret information collected from the client in order to identify client needs and goals
- K12 The types of medical conditions that will prevent personal trainers from working with a client unless they have specialist training and qualifications
- K13 How and when personal trainers should refer clients to another professional

Analysing information and agreeing goals with clients

- K14 How to organise information in a way which will help to interpret and analyse it
- K15 How to analyse and interpret collected information so that client needs and goals can be identified
- K16 How to identify personal training goals with clients

- K17 Why it is important to base goal setting on analysis of clients' needs
- K18 Why it is important to identify and agree short-, medium- and long-term goals with clients and ensure that these take account of barriers and discrepancies, including client fears and reservations about physical activity
- K19 How to identify clients' short-, medium- and long-term goals to include:
- general health and fitness,
 - physiological,
 - psychological,
 - lifestyle,
 - social,
 - functional ability
- K20 The importance of long-term behaviour change and how to ensure clients understand and commit themselves to long-term change
- K21 The importance of clients understanding the advantages of taking part in a personal training programme and identifying any obstacles they may face
- K22 Barriers which may prevent clients achieving their goals
- K23 Strategies which can prevent drop-out or relapse
- K24 How to encourage clients commit themselves to long-term change

Planning a personal training programme

- K25 How to access and use credible sources of guidelines on programme design and safe exercise
- K26 How to identify accepted good practice in designing personal training programmes
- K27 How to research and identify exercises and activities which will help clients to achieve their goals
- K28 How to programme exercise to develop:
- cardiovascular fitness,
 - muscular fitness,
 - muscular strength
 - flexibility,
 - motor skills,
 - core stability
- K29 How to design exercise programmes for clients with a range of goals including:
- general health and fitness,
 - physiological,
 - psychological,
 - lifestyle,
 - social,
 - functional ability
- K30 The key principles of designing programmes to achieve short-, medium- and long-term goals, including the order and structure of sessions
- K31 A range of safe and effective exercises/physical activities to develop:
- cardiovascular fitness,
 - muscular fitness,
 - muscular strength
 - flexibility,
 - motor skills,
 - core stability
- K32 Program planning for improvement of health- and skill-related components of fitness:
- body composition
 - muscle endurance
 - muscle strength
 - flexibility
 - cardiovascular endurance
 - balance
 - reaction time
 - coordination
 - power
 - speed
 - agility
 - proprioception

- K33 Safety and preparation considerations for the use of plyometric training in personal training
- K34 Programme design and variables relevant to the combination of health- and skill-related components of fitness in the client's programme:
- muscle actions
 - loads and volumes
 - exercise selection and order
 - rest periods
 - repetition velocity
 - frequency
- K35 Training principles relevant to the health- and skill-related components of fitness in the client's program:
- overload
 - progression/ regression
 - adaptation
 - specificity
 - individualisation
 - maintenance
- K36 Training methods and consideration of intensity, program types, sets and reps, circuits, matrices, super-sets, pre-fatigue and interval training
- K37 Types of conditioning and training, and expected adaptations, including timing, for:
- speed
 - power
 - strength
 - flexibility
 - cardiovascular endurance
 - hypertrophy
 - muscle endurance
 - weight loss
 - agility
 - reaction time
 - balance
 - coordination
- K38 How to structure the sessions which make up the programme
- K39 How to include physical activities as part of the client's lifestyle to complement exercise sessions
- K40 How to work in environments that are not specifically designed for exercise/physical activity
- K41 How to apply the principles of training to programme design
- K42 Heart rate training zone models for developing aerobic and anaerobic capacity
- K43 The repetition ranges for strength, power, endurance and muscle hypertrophy
- K44 How to make sure the components of fitness are built into the programme
- K45 When it might be appropriate to share the programme with other professionals
- K46 The range of resources required to deliver a personal training programme, including:
- environment for the session,
 - portable equipment,
 - fixed equipment
- K47 Benefits, risks and contraindications for a variety of resistance training exercises, range of motion exercises and cardiovascular training exercises
- K48 How to use a range of cardiovascular equipment in exercise programming including:
- bikes,
 - treadmills,
 - elliptical trainers,
 - steppers,
 - rowing machines
- K49 How to use a range of free weight equipment in exercise programming including:
- bars,
 - dumbbells,
 - collars,
 - barbells,
 - benches

- K50 How to use a range of resistance machines in exercise programming
- K51 How to use a range of exercise equipment in exercise programming including:
- exercise balls,
 - bars,
 - steps,
 - bands
- K52 Physiological adaptations that take place as a result of taking part in an exercise programme
- K53 How to design exercise programmes for a range of clients including experienced or inexperienced, various ages, active or inactive
- K54 How to develop exercise programmes which may include:
- client detail,
 - current fitness level,
 - client goals,
 - targeted adaptations,
 - anticipated rate of client adaptation,
 - periodization of multiple target adaptations,
 - number and nature of specific session programs,
 - equipment requirements,
 - facility requirements,
 - review dates
- K55 How to design and tailor exercise programmes for a range of clients, including sedentary, recovery from injury, over-trained, high-level performer, sport specific performer, clients with low-risk health conditions
- K56 The advantages and disadvantages of exercising at various intensities
- K57 How to design programmes that can be delivered in small groups
- K58 Understand how data can be monitored and interpreted using a range of available systems: e.g. CRM, social media.
- K59 Understand how technological advancements can be used to support the customer experience to increase physical activity levels, motivation and focus: e.g. wearable technology, pedometers, mobile phone applications.



D5. Plan and deliver personal training sessions

This standard describes how to plan and deliver personal training sessions. The personal training sessions will be part of a longer-term exercise programme which the personal trainer has prepared for the client. Screening procedures and the collection of relevant information about the client will have taken place at the start of the programme.

Performance Criteria

Exercise professionals should be able to:

Task 1 - Plan personal training sessions

- 1.1 Plan a range of exercises to help clients achieve their specified objectives and goals, these could include:
 - cardiovascular fitness,
 - muscular fitness,
 - flexibility,
 - motor skills,
 - core stability
- 1.2 Select appropriate instructional techniques and strategies
- 1.3 Use music appropriately if relevant to the session type and session objectives

Task 2 - Prepare the environment and equipment for personal training sessions

- 2.1 Obtain permission for use of public spaces if required
- 2.2 Evaluate the exercise environment for suitability for exercise and to ensure client safety
- 2.3 Identify, obtain and prepare the resources and equipment needed for planned exercises, improvising safely where necessary

Task 3 - Prepare clients for personal training sessions

- 3.1 Help clients feel at ease in the exercise environment
- 3.2 Explain the planned objectives and exercises to clients and how they meet client goals
- 3.3 Explain the physical and technical demands of the planned exercises to clients
- 3.4 Assess clients' state of readiness and motivation to take part in the planned exercises
- 3.5 Negotiate and agree with clients any changes to the planned exercises that meet their goals and preferences and enable them to maintain progress
- 3.6 Explain the purpose and value of a warm-up to clients
- 3.7 Provide warm-up activities appropriate to the clients, planned exercise and the environment

Task 4 - Demonstrate exercises and use of equipment

- 4.1 Determine client's prior knowledge and skill in the exercise
- 4.2 Demonstrate the correct and safe performance of exercises to the client using appropriate anatomical terminology as required
- 4.3 Demonstrate safe and appropriate use of fitness equipment which may include cardio-vascular equipment, free weights and innovative exercise equipment

Task 5 - Instruct and adapt planned exercises

- 5.1 Provide clear instructions, explanations and demonstrations that are technically correct, safe and effective
- 5.2 Supervise client exercise sessions according to the exercise plan
- 5.3 Analyse clients' performance, providing positive reinforcement throughout
- 5.4 Observe and where needed adapt exercise technique
- 5.5 Apply the limiting factors of the body's energy systems to the setting of exercise intensities as required
- 5.6 Progress or regress exercises according to clients' performance

- 5.7 Ensure clients can carry out the exercises safely on their own
- 5.8 Use motivational techniques for individual training to increase performance and adherence to exercise
- 5.9 Recommend and implement steps that improve exercise adherence for clients
- 5.10 Relate the location and function of the major bones and major joints to movement when instructing the client
- 5.11 Relate major muscles and their prime moving movements at major joints in the body to movement when instructing clients
- 5.12 Keep appropriate records of personal training sessions in relation to the overall programme

Task 6 - Bring exercise sessions to an end

- 6.1 Explain the purpose and value of cool-down activities to clients
- 6.2 Select and deliver cool-down activities according to the type and intensity of physical exercise and client needs and condition
- 6.3 Allow sufficient time for the closing phase of the session
- 6.4 Provide clients with feedback and positive reinforcement
- 6.5 Encourage clients to think about the session and provide feedback
- 6.6 Explain to clients how their progress links to their goals and the overall programme
- 6.7 Leave the environment in a condition suitable for future use

Task 7 - Reflect on providing personal training sessions

- 7.1 Review the outcomes of working with clients including their feedback
- 7.2 Identify:
 - how well the sessions met clients' goals,
 - how effective and motivational the relationship with the client was,
 - how well the instructing styles matched the clients' needs
- 7.3 Identify how to improve personal practice

Knowledge and Understanding

Exercise professionals should know and understand:

Planning and preparing personal training sessions

- K1 Typical preferences, needs and expectations of clients, to include:
 - cultural considerations,
 - fitness goals,
 - perceived benefits,
 - cost,
 - time availability
- K2 The needs and considerations for different types of clients, to include:
 - experienced,
 - inexperienced,
 - active,
 - inactive
- K3 Fitness equipment which can be used in personal training, to include:
 - exercise balls,
 - bars,
 - steps,
 - bands,
 - abdominal assisters,
 - plyometric training systems,
 - pin loaded, cardiovascular, free weight, hydraulic, electronic and air-braked equipment
- K4 Structure of 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 clients
- K5 How to plan a range of exercises for a personal training session
- K6 The physical and technical demands of exercises
- K7 Fitness training techniques for cardiovascular, resistance, functional and flexibility exercise
- K8 Different client learning styles
- K9 Motivational techniques to provide feedback and encouragement to clients to maximise exercise adherence
- K10 The safe and effective use of fitness activity equipment to enable incorporation of equipment use within the program

Demonstrating exercise activities and use of equipment

- K11 How to perform a range of exercises in a safe and correct manner
- K12 Anatomical terminology relevant to correct exercise technique
- K13 How to adapt communication to meet clients' needs
- K14 The safe use of exercise equipment

Instructing and adapting planned exercises

- K15 Instructional techniques which can be used in personal training, to include:
 - establishing rapport,
 - instructional position,
 - communication,
 - demonstration and motivational strategies,
 - positive feedback
- K16 The purpose and value of the warm-up
- K17 How to instruct exercise during personal training sessions
- K18 Different methods of maintaining clients' motivation, especially when clients are finding exercises difficult
- K19 How to analyse client performance
- K20 The importance of correcting client technique and how to do it
- K21 How to adapt exercise to meet client needs during personal training sessions
- K22 Different methods of monitoring clients' progress during exercise
- K23 Why it is important to monitor individual progress especially if more than one client is involved in the session
- K24 When it may be necessary to adapt planned exercises to meet clients' needs
- K25 How to modify and adapt exercises, sessions and programmes for a range of individual needs
- K26 How to adapt exercise/exercise positions as appropriate to individual clients and conditions
- K27 How to modify the intensity of exercise according to the needs and response of the client
- K28 Why clients need to see their progress against objectives in terms of their overall goals and programme
- K29 Understand how to design sessions that can be delivered to small groups
- K30 How to design effective small group PT sessions.
- K31 How to balance the needs of the individual and the group.

Bringing personal training sessions to an end

- K32 The purpose and value of the cool down and how to deliver cool-down activities
- K33 How to give clients feedback on their performance in a way that is accurate but maintains client motivation and commitment
- K34 Why clients need information about future exercise and physical activity, both supervised and unsupervised

Reflecting on providing personal training sessions

- K35 Understand how to review personal training sessions with clients
- K36 Why clients should be given the opportunity to ask questions, provide feedback and discuss their performance
- K37 How to evaluate own performance and improve personal practice

Personal training – Equipment and training specifications

- K38 Cardiovascular approaches to training:
 - interval
 - Fartlek
 - continuous
- K39 Equipment:
 - cardiovascular machines
 - resistance machines
 - free weights – including barbells and dumbbells and cables where available
- K40 Correct lifting and passing techniques, including dead lifting the barbell safely from the floor and spotting
- K41 Resistance approaches to training:
 - pyramid systems
 - super-setting
 - giant sets
 - tri-sets
 - forced repetitions
 - pre-/ post-exhaust
 - negative / eccentric training
 - muscular strength, endurance / muscular fitness

D6. Support long-term behaviour change by monitoring client exercise adherence and applying motivational techniques

This standard describes how to analyse client behaviour and motivate clients to commence and adhere to a long-term exercise plan. The standard also covers monitoring attendance against the client's exercise plan and intervening to maintain client attendance, monitoring progress against the exercise programme and providing support and motivation to exercise clients.

Performance Criteria

Exercise professionals should be able to:

Task 1 - Collect information to assist clients to develop strategies for long-term behaviour change

- 1.1 Obtain information about clients' current exercise behaviour and their attitude towards exercise to determine the stage of readiness to change behaviour
- 1.2 Assess the level of motivation, commitment and confidence of clients to change attitudes, beliefs and behaviour
- 1.3 Identify clients' goals for taking part in regular physical activity and readiness to change behaviour
- 1.4 Analyse the clients' lifestyle and identify opportunities for exercise and physical activity
- 1.5 Identify the clients' preferences for exercise
- 1.6 Identify appropriate incentives and rewards for the clients taking part in physical activity
- 1.7 Identify clients' perceived barriers to exercise and other factors that may impact negatively on the success of exercise behaviour change

Task 2 - Assist clients to develop strategies for long-term behaviour change

- 2.1 Implement effective goal setting to support clients to adhere to long-term exercise behaviour
- 2.2 Present motivational strategies appropriate to individual client, social and cultural differences, needs, barriers and other influences
- 2.3 Work with the clients to select and adapt a long-term strategy to adhere to exercise and physical activity, building on opportunities, preferences and incentives and minimising barriers
- 2.4 Ensure chosen strategies to motivate exercise behaviour change are based on behaviour change models, processes of change, evidence based research and client characteristics
- 2.5 Emphasise short- and long-term benefits of regular exercise to encourage exercise behaviour change
- 2.6 Advise clients on techniques that may increase their adherence to exercise
- 2.7 Recognise and take account of common reasons for discontinuation of exercise programmes when setting programme guidelines
- 2.8 Use the physical and the psychological characteristics that apply to each stage of fitness, stages of change and the most appropriate form of motivation at each level

Task 3 - Assist clients to implement strategies to improve client exercise adherence

- 3.1 Work with clients to encourage mutual trust, openness and a willingness to take responsibility for their own fitness and behaviour change
- 3.2 Provide support to clients' adherence strategy to achieve long-term behaviour change in line with their goals
- 3.3 Monitor the clients' adherence to exercise and physical activity
- 3.4 Demonstrate an understanding of the determinants of exercise adherence that influence an individual's behaviour
- 3.5 Demonstrate appropriate manner, empathy and patience when working with clients embarking on behaviour change
- 3.6 Monitor and review progress regularly to reinforce efforts
- 3.7 Identify on-going barriers to continuation of long-term exercise and provide motivational strategies as appropriate
- 3.8 Assess changes in behaviour in collaboration with the client to determine the effectiveness of the strategies implemented and make appropriate adjustments
- 3.9 Monitor attendance against the client's exercise plan and intervene to maintain client attendance

Knowledge and Understanding

Exercise professionals should know and understand:

- K1 Behavioural strategies to enhance exercise, health behaviour change and lifestyle modifications
- K2 Stages of motivational readiness and processes of change
- K3 Types of motivation, achievement motivation theory and specific techniques to enhance motivation
- K4 Role of intrinsic and extrinsic motivation in exercise behaviour
- K5 Methods of evaluating self-motivation, self-efficacy and readiness for behaviour change
- K6 Arousal and anxiety theory, and its relationship to exercise performance, adherence and behaviour change
- K7 Different behaviour change models including:
 - health belief model,
 - trans-theoretical model,
 - motivational change model,
 - social cognitive model,
 - theory of planned behaviour,
 - relapse prevention model
- K8 Principles of behaviour change to include:
 - changes to exercise behaviour,
 - changes to dietary intake,
 - lifestyles changes
- K9 Processes of change within behaviour change strategies:
 - cognitive processes,
 - behavioural processes
- K10 Different strategies to improve exercise adherence including:
 - prompts,
 - contracting,
 - perceived choice,
 - reinforcement,
 - feedback,
 - rewards,
 - self-monitoring,
 - goal setting,
 - social support,
 - decision balance sheet,
 - physical setting,
 - exercise variety,
 - minimised discomfort and injury,
 - group training,
 - enjoyment,
 - periodic fitness and health assessment,
 - progress charts
- K11 Different barriers to exercise to include:
 - lack of time,
 - lack of energy,
 - lack of motivation,
 - excessive cost,
 - illness or injury,
 - feeling uncomfortable,
 - lack of skill,
 - fear of injury,
 - fear of safety,
 - lack of child care,
 - insufficient access,
 - lack of support,
 - lack of transportation

- K12 How to collect information about client's attitude towards exercise to include:
- client expectations,
 - coping techniques,
 - defence mechanisms,
 - belief systems and values,
 - social support systems,
 - stage of readiness for change
- K13 The stages of readiness for change:
- pre-contemplation,
 - contemplation,
 - preparation,
 - action,
 - maintenance,
 - relapse
- K14 Principles of goal setting:
- short, medium and long terms goals,
 - SMART goals,
 - outcome, process and performance goals,
 - goal achievement strategies,
 - goal support,
 - evaluation and feedback,
 - recording goals,
 - linked to personality and motivation
- K15 Arousal control techniques:
- anxiety management,
 - progressive relaxation,
 - stress management,
 - visualisation,
 - self-talk
- K16 Components of motivation:
- direction of effort,
 - intensity of effort,
 - persistence of behaviour
- K17 How to communicate effectively verbally and non-verbally
- K18 Personal and situational factors which can affect exercise adherence:
- personality,
 - self-concept,
 - efficacy,
 - habits,
 - lifestyle,
 - family situation

D7. Manage, review, adapt and evaluate personal training programmes

This standard describes how to manage personal training programmes with clients and adapt programmes based on review and evaluation. It is very important for personal trainers to evaluate physical activity programmes, assess how effective they have been for clients and to learn lessons for future practice.

The standard covers:

- gathering and analysing information on the client's fitness, exercise plan, attendance record and schedule of tasks
- discussing performance with the client and identifying factors that help or hinder progress
- developing strategies with the client in the areas of support, planning, and effort, to enhance performance
- confirming or updating goals in line with client's expectations, experiences and results
- adapting exercise programmes in line with the new exercise plan and updated goals.

The standards also covers some basic elements of business and marketing.

Performance Criteria

Exercise professionals should be able to:

Task 1 - Manage personal training programmes for clients

- 1.1 Monitor effective integration of all programme exercises/physical activities and sessions
- 1.2 Undertake client support tasks and document them in a diary or calendar, including calls, next assessment date, any planned contact time
- 1.3 Provide alternatives to the programmed exercises/physical activities if clients cannot take part as planned

Task 2 - Monitor and review on-going progress with clients

- 2.1 Monitor clients' progress using appropriate methods
- 2.2 Explain the purpose of review to clients
- 2.3 Review short-, medium- and long-term goals with clients at agreed points in the programme, taking into account any changes in circumstances
- 2.4 Encourage clients to give their own views on progress
- 2.5 Assess clients for relevant fitness level changes
- 2.6 Use suitable methods of evaluation that will help to review client progress against goals and initial baseline data
- 2.7 Give feedback to clients during their review that is likely to strengthen their motivation and adherence
- 2.8 Recognise the signs and symptoms of overtraining and utilise strategies for its prevention
- 2.9 Agree review outcomes with clients
- 2.10 Keep an accurate record of reviews and their outcome
- 2.11 Develop strategies with clients in the areas of support, planning, and effort, to enhance performance

Task 3 - Adapt personal training programmes with clients

- 3.1 Identify goals and exercises/physical activities that need to be redefined or adapted
- 3.2 Agree adaptations, progressions or regressions to meet clients' needs as and when necessary to optimise their achievement
- 3.3 Identify and agree any changes to resources and environments
- 3.4 Introduce adaptations in a way that is appropriate to clients and their needs
- 3.5 Record changes to programme plans to take account of adaptations
- 3.6 Analyse and incorporate clients' exercise likes and dislikes into a modified exercise plan
- 3.7 Review clients' goals and incorporate changes to goals into the exercise plan
- 3.8 Confirm or update goals in line with clients' expectations, experiences and results
- 3.9 Write revised programme and provide instruction to clients

Task 4 - Work with clients to evaluate personal training programmes

- 4.1 Collate all available information regarding the planned programme and client objectives
- 4.2 Collate information regarding client progress, adaptations to the programme and the reasons for adaptation
- 4.3 Collate information regarding client adherence
- 4.4 Collect structured feedback from clients
- 4.5 Analyse available information and feedback
- 4.6 Draw conclusions about the effectiveness of personal training programmes
- 4.7 Discuss conclusions with clients and take account of their views

Task 5 - Identify lessons for future practice

- 5.1 Identify the relative success of each programme component
- 5.2 Prioritise those programme components that are vital to improving practice
- 5.3 Identify how programme components could be improved
- 5.4 If necessary, undertake further research and development to improve programme components
- 5.5 Note lessons for future practice

Task 6 - Manage business performance in personal training

- 6.1 Plan and regularly review business performance in order to meet business goals and targets whilst identifying areas for improvement.
- 6.2 Implement a variety of effective marketing strategies to engage prospective clients.

Knowledge and Understanding

Exercise professionals should know and understand:

Managing and reviewing a personal training programme with clients

- K1 How to integrate all parts of a personal training programme effectively
- K2 How to undertake client support tasks
- K3 The importance of monitoring and reviewing programmes with clients
- K4 Methods of collecting, analysing and recording information that will help to review progress against goals and initial baseline data
- K5 How to communicate information to clients and provide effective feedback
- K6 Why it is important to encourage clients to give their views
- K7 How to analyse and record clients' progress
- K8 Why it is important to agree changes with clients
- K9 Why it is important to communicate progress and changes to all those involved in the programme
- K10 Why it is important to keep accurate records of changes and the reasons for change
- K11 How to recognise signs and symptoms of overtraining

Adapting personal training programmes with clients

- K12 How to review short, medium and long term goals with clients taking into account any changes in circumstances
- K13 How to identify exercise/physical activities which need to be redefined or adapted
- K14 How to identify changes required to resources or environments
- K15 How the principles of training can be used to adapt the programme where goals are not being achieved or new goals have been identified
- K16 How to make changes to the programme and exercise plan
- K17 How to communicate adaptations to clients and other professionals
- K18 The different training systems and their use in providing variety and ensuring programmes remain effective
- K19 Why it is important to keep accurate records of changes and the reasons for change

Working with clients to evaluate personal training programmes

K20 Why it is important to evaluate personal training programmes

K21 The principles of evaluation

K22 What information is needed to evaluate personal training programmes

K23 Why it is important to evaluate all stages and components of personal training programmes

K24 Methods which can be used to get structured feedback from clients

K25 How to analyse information and client feedback

K26 Why it is important to discuss conclusions with the client

Identifying lessons for future practice

K27 Why continuous improvement is important for personal trainers

K28 How to prioritise which programme components to work on

K29 Programme components which are vital to improving practice:

- information gathering,
- planning,
- selection and structure of activities,
- programme management,
- programme monitoring,
- programme adaptation and progression,
- client relationship,
- client motivation and adherence,
- client satisfaction

K30 Sources of information, advice and best practice on how to improve programme components

K31 Why it is important to share conclusions about improving own practice with other people

K32 How to make use of improvements in the future

Manage business performance in personal training

K33 Understand relevant marketing strategies and techniques

- e.g. brand awareness, self-promotion, market research (e.g. SWOT/PEST analysis),
how to develop a marketing plan

K34 Understand aspects of business planning relevant to own role: e.g. individual and organisational goals, targets and objectives (e.g. key performance indicators), client-facing services and products, sales and how to grow a client base, activities to support business objectives and growth.

K35 Know how to manage own business financials: e.g. budgeting (e.g. forecasting, sales and targets), profit a loss (e.g. gross profit, net gain) and balance sheets, tax and insurance legislation, financial reporting, self-employed and employed requirements.



GROUP E

SPECIAL POPULATION UNITS

E1. Plan and deliver exercise for older adults

This standard describes how to plan and deliver exercise for older adults. It involves planning, demonstration, instruction, review and modification of activities and instructional techniques to meet the needs of older adults. The standard, however, only covers working with apparently healthy (i.e. asymptomatic) older adults or those with medical conditions carrying a low risk of adverse, exercise-related events. It is expected that instructors will already be qualified in exercise instruction before performing the skills in this standard.

Performance Criteria

Exercise professionals should be able to:

Task 1 - Identify older client fitness requirements

- 1.1 Consider and confirm client needs, expectations and preferences using suitable questioning techniques
- 1.2 Review and advise client of outcomes of pre-exercise health screening procedures
- 1.3 Refer client to medical or allied health professionals as required
- 1.4 Select and use appropriate baseline functional capacity or fitness assessments, as required
- 1.5 Identify barriers to exercise participation by older clients
- 1.6 Explain benefits of exercise for older populations and the role of exercise in reducing risks associated with ageing
- 1.7 Receive and follow guidance from medical or allied health professionals for exercise participation, as required
- 1.8 Develop and document client profile for re-evaluation purposes

Task 2 - Develop programme plans for older clients

- 2.1 Identify settings and programme considerations that support safe and sustainable exercise participation for older clients
- 2.2 Determine type of training, training methods and equipment required to achieve client goals
- 2.3 Develop and document programme plans that incorporate instructional information and guidance from medical or allied health professionals if required
- 2.4 Develop customised training sessions that include a variety of exercises and equipment to meet client needs
- 2.5 Discuss and confirm client understanding of potential signs and symptoms of intolerance contraindications to exercise and recommended precautions

Task 3 - Instruct exercise session for older clients

- 3.1 Allocate sufficient space, assemble resources and check equipment for safety and maintenance requirements
- 3.2 Provide clear exercise instructions and confirm client understanding
- 3.3 Demonstrate exercises, techniques and equipment to client
- 3.4 Explain any precautions for exercise relevant to client age, ability and risk status
- 3.5 Monitor participation and performance to identify signs of exercise intolerance and modify as required
- 3.6 Monitor client intensity, techniques, posture and safety, and modify program as required
- 3.7 Seek on-going guidance from, or refer client to, medical or allied health professionals, as appropriate
- 3.8 Select and use communication techniques that encourage and support clients
- 3.9 Modify session as required, considering basic mechanics, safety and fitness outcomes
- 3.10 Respond to clients experiencing difficulties and answer questions as required
- 3.11 Complete session documentation and progress notes

Task 4 - Evaluate older client exercise programme

- 4.1 Monitor and evaluate exercise programme at appropriate intervals
- 4.2 Provide written and verbal feedback to medical or allied health professionals, as required
- 4.3 Request and respond to feedback from clients
- 4.4 Review own performance and identify areas needing improvement
- 4.5 Identify aspects needing further emphasis or attention in future sessions
- 4.6 Evaluate programme or activities and discuss with client modifications to program
- 4.7 Document and update records of evaluation and modification of programmes.

Knowledge and Understanding

Exercise professionals should know and understand:

- K1 Information which can be collected about older adults:
- personal goals, medical history and medication,
 - functional capacity (i.e. markers that may indicate certain exercises, types or intensities of physical activity are contraindicated),
 - current activity levels,
 - exercise history
 - baseline strength and power,
 - balance and postural stability (dynamic),
 - auditory, visual and other sensory function (e.g. use of hearing aid, glasses),
 - use of physical supports i.e. orthotics
 - real and perceived barriers to physical activity,
 - exercise preferences
 - economic status (as appropriate),
 - peer/ family support
- K2 Methods of collecting information: interview, questionnaire, adapted fitness assessments, observation and recording
- K3 Overview of ageing and physical activity
- demographic aspects (for example, gender, culture and ethnicity)
 - definitions – theories of ageing, chronological, biological, functional, successful, pathological
 - the benefits of physical activity throughout the lifespan for disease prevention, health promotion, preservation of function and quality of life
 - current research on physical activity, exercise inactivity and ageing
- K4 Age associated physiological and biomechanical changes and their implications for the older adult's ability to perform physical activity with optimal benefits and minimum risk (e.g. of a trip, fall, injury or a cardiac event) including:
- skeletal system changes associated with ageing
 - muscular system changes associated with ageing
 - respiratory system changes associated with ageing
 - cardiovascular system changes associated with ageing
 - nervous system changes associated with ageing
- K5 Psychological and socio-cultural aspects of physical activity and ageing:
- considerations when establishing and developing an effective working relationship with older clients
 - the particular health and functional benefits of habitual physical activity and exercise for old age (prevention of falls, osteoporosis, joint stiffness, minimises muscle loss, isolation, maintenance of independence and role in peer mentoring etc.)
 - the barriers (e.g. attitudes, beliefs, anxieties, myths, opinions formed by past experiences, cultural restrictions, etc.) that older clients may have to physical activity and how to take account of these
 - the relationship between habitual physical activity and psychosocial well-being
- K6 An awareness of the medical conditions common in old age that impact on safety during physical activity and exercise
- K7 Programme design and management for healthy older adults
- the variables (frequency, intensity, time, type and principles of training, progression/regression, functional relevance, challenge) of exercise applied to older adults in both individual and group settings,
 - the guidelines to consider when analysing and adapting movement and selecting the warm-up, strength/power, dynamic balance, flexibility and aerobic, training components of a programme for older clients,
 - systematic approaches to motivational, environmental and other factors that may assist older clients to uptake and adhere to physical activity,
 - the integration of supervised step by step functional (life-related) movement patterns and activities into all sessions(e.g. correct lifting technique; getting up and down from the floor, in and out of chairs etc.),
 - methods for client reassessment and programme evaluation
 - how to minimise the risk of falls

- K8 Further considerations for programme design for older adults with medical conditions carrying a low risk of exercise-related events:
- the appropriate adaptations to the structure and content of sessions required for clients with medical conditions commonly associated with old age which may be adversely affected by physical activity,
 - the types of physical (functional) limitations associated with ageing that may lead to injury and will need specific adaptation for exercise,
 - how to use pre-participation assessments to risk stratify (i.e. asymptomatic or low risk etc.) and manage the risks associated with any conditions and limitations during physical activity
- K9 The importance of proper nutrition, hydration and fluid replacement, particularly when participating in physical activity
- K10 Teaching and instructing skills
- developing and refining the teaching skills through application of motor learning principles (for example, visual and verbal instruction, observation, movement analysis and specific adaptation and communication skills through tutor led, peer evaluated teaching and technique practice workshops),
 - monitoring and adaptation of exercise variables,
 - observation and correction of poor exercise technique,
 - development of safe, effective, enjoyable and elder-friendly exercise and physical activity environments (e.g. use of equipment, music, transport where applicable),
 - development of planning and group organisational and motivational skills (e.g. lesson plans, pre session rest and individual preparation time and post session tea and socialise/ recovery time),
 - formative self-evaluation (e.g. of teaching effectiveness, communication skills),
 - development of communication strategies including listening and response skills, functional client-centred goal setting and progress review
- K11 Communication, marketing strategies and skills:
- development of effective motivational communication strategies relating to individual and group dynamics in a range of settings associated with the delivery of exercise for older clients (e.g. sheltered housing, residential homes, community centres, leisure and recreation facilities and health and fitness clubs),
 - translation of technical terminology into client friendly language and of intimidating equipment into accessible modalities (e.g. resistance bands rather than dumbbells in the first instance in care settings),
 - development of social support strategies to enable long-term participation
 - listening skills and addressing clients feedback,
 - development of effective age-friendly marketing strategies, images, messages and events calendar
- K12 Client safety and first aid:
- signs that indicate that exercise should be discontinued immediately and/or medical consultation sought,
 - extension of the standard appropriate response to emergency situation (for example, accompany home; telephone follow up and support; reassurance for other clients; establishment of a specific emergency action plan with and for, the senior exercise group)
- K13 Identification of a safer and older adult friendly exercise environment (for example, accessibility/transport, floor surfaces, footwear, lighting, access to toilet facilities and drinking water, temperature control and safe, comfortable refreshment facilities)
- K14 Recommended healthy eating guidelines for older clients to enable the provision of accurate information to clients
- K15 Principles of biomechanics and exercise science to enable the selection of exercises appropriate to client conditions and needs
- K16 Physiological, social and emotional processes of ageing to enable effective planning of programs
- K17 Legislation and regulatory requirements and organisational policies and procedures to enable safe and appropriate conduct of exercise for older clients
- K18 Needs and expectations of older adults which may include recreational, social, improved fitness levels, strength and functional movement skills
- K19 Role of medical or allied health professionals for referral purposes
- K20 Awareness of major types of injuries or conditions that may present in older clients that may require referral to a relevant medical or appropriate allied health professional:
- K21 Importance of strength and balance training in falls prevention
- K22 Awareness of the following injury risks or considerations that may be related to older clients: inadequate skill and physical preparation; overtraining; biomechanics and exercise technique; physical and mental preparation; poor core and postural awareness; fatigue and recover; history of falls
- K23 Benefits of exercise related to older populations: increased muscle mass; maintenance of bone health; joint health; minimising fat levels to prevent disease; improved ability to function in everyday tasks and reduced risk of functional decline that is often associated with ageing; prevention of chronic disease related to sedentary lifestyles and ageing; reduced risk of falls
- K24 Concepts of healthy ageing
- K25 Risks of leading a sedentary ageing lifestyle: falls; low bone density; cardiovascular deficiency.

E2. Plan and deliver exercise for clients with disabilities

This standard describes how to plan and deliver exercise to people with disabilities. Many people with disabilities experience barriers to accessing sufficient exercise and physical activity due to psychological, physical or social reasons. It is widely recognised that regular, planned exercise in a safe and supportive environment may not only provide the same health benefits to clients with disabilities as for non-disabled clients, but it may also reduce the risk for additional disabling conditions, improve the ability to perform activities of daily living that might previously have been difficult, and maintain or even improve independence. To provide appropriate support and advice, and to create safe, effective, meaningful and enjoyable exercise and physical activity programmes, exercise instructors need a greater understanding of psycho-social and physical factors relating to clients with disabilities. The standard only covers working with people with disabilities who access exercise and physical activity independently of a medical referral and do not have an underlying medical condition for which medical referral is necessary. National legislation may be in place in some countries concerning mental health or assistance from a helper. It is expected that instructors will already be qualified in exercise instruction before performing the skills in this standard.

This standard is supported by the Global UFIT Initiative which is led by the UNESCO Chair in Inclusive Fitness, Sport & Recreation, PE.



Performance Criteria

Exercise professionals should be able to:

Task 1 - Collect and analyse information about clients with disabilities

- 1.1 Conduct pre-exercise screening with clients with disabilities
- 1.2 Collect, record and analyse information about clients with disabilities using safe and appropriate methods
- 1.3 Establish and agree readiness to participate
- 1.4 If necessary, seek specific advice and information from clients with disabilities, their carer or personal assistant, or another competent source before commencing activity
- 1.5 Identify barriers to participation and work with clients with disabilities to overcome them
- 1.6 Follow legal and ethical requirements for the security and confidentiality of client information

Task 2 - Plan exercise for clients with disabilities

- 2.1 Plan and agree goals with clients with disabilities that are appropriate to their level of ability and objectives, and which will improve or maintain their functioning in activities of daily living
- 2.2 Plan and prepare individual activities and physical activity programmes that are appropriate to goals, functional ability and any existing medical conditions
- 2.3 Select appropriate equipment, resources and support strategies according to individual clients with disabilities
- 2.4 Ensure the environment is accessible for the client and their needs, including the exercise setting, entrance, changing and shower facilities
- 2.5 Where relevant, plan a person-centred and individualised behaviour management plan (involving carers/personal assistants where appropriate)

Task 3. Instruct exercise to clients with disabilities

- 3.1 Instruct and adapt activities using client-centred communication to progress or regress performance against agreed goals according to the needs of clients with disabilities
- 3.2 Explain and demonstrate exercises to clients and provide opportunities for questioning, clarification and further modification, adapting communication to meet client's communication needs
- 3.3 Monitor exercise intensity, technique and safety of clients during session and modify as required according to client responses
- 3.4 Apply appropriate motivational techniques to encourage clients
- 3.5 Instruct the exercise session including making appropriate modifications to equipment and exercise selection
- 3.6 Ensure clients with disabilities are able to receive support from their carer or personal assistant where required, for any personal or medical needs they may have during their programme
- 3.7 Manage the exercise environment safely and effectively
- 3.8 Work effectively with carers/personal assistants
- 3.9 Liaise appropriately with clients with disabilities regarding management of assistance animals (where relevant)
- 3.10 Encourage clients with disabilities and carers/personal assistants to give feedback on the sessions

Task 4. Evaluate exercise for clients with disabilities

- 4.1 Evaluate the exercise session according to client feedback, personal reflection, and in relation to progress towards their individual goals
- 4.2 Provide feedback to clients with disabilities on their progress and any changes recommended
- 4.3 Identify modifications to the exercise plan where relevant to meet needs identified through evaluation

Knowledge and Understanding

Exercise professionals should know and understand:

- K1 Inclusive fitness initiatives and how they facilitate exercise and physical activity for people with disabilities
- K2 How to plan and instruct exercise for a range of clients with disabilities, including those with:
- a physical disability,
 - a learning disability,
 - a hearing impairment,
 - a visual impairment
 - a communicative disability
 - a behavioural disability
- K3 The types of information to collect about clients with disabilities including:
- personal goals and objectives,
 - current level of functional ability,
 - requirements for access,
 - available support and personal requirements,
 - preferred communication methods,
 - safety requirements,
 - medical requirements,
 - equipment requirements,
 - exercise history,
 - barriers and facilitators to participation
- K4 Methods which can be used to collect information about clients with disabilities including:
- consulting with the client,
 - consulting with carers/personal assistants (where appropriate),
 - consulting with other professionals,
 - functional assessment,
 - observation,
 - feedback
- K5 The exercise goals of clients with disabilities including:
- physical,
 - psychological,
 - lifestyle,
 - social,
 - adherence

- K6 Legal and ethical responsibilities:
- legislation and human rights relating to working with people with a disability,
 - standard operating procedures for safe use of facilities by clients with disabilities, their carers and personal assistants, and assistance animals,
- K7 Psychological, socio-cultural and economic aspects of disability:
- considerations when establishing and developing an effective working relationship with clients with disabilities,
 - barriers to participation commonly experienced by disabled people and how to overcome these,
 - professional and organisational barriers to inclusion of clients with disabilities,
 - different models of disability
- K8 Issues of responsibility and liability including:
- the limits of own competence,
 - when and how to refer clients to their GP/relevant healthcare professional,
 - liaison with other relevant people
- K9 Screening and assessment issues:
- how to obtain information and advice regarding clients with disabilities,
 - identification of contraindications and special precautions specific to the client with disabilities,
 - identification and interpretation of information to identify whether to proceed with physical activity or refer the client to a health care professional,
 - methods of client-centred functional assessment and reassessment,
 - how to identify when to refer clients with disabilities to other professionals
- K10 The types of impairments which clients with disabilities may have and the implications of these on participation in a physical activity programme
- K11 The implications that having a disabling condition may have on:
- cardiovascular capacity,
 - muscular strength,
 - muscular endurance,
 - flexibility and mobility,
 - co-ordination/balance/motor skills,
 - functional capacity
- K12 Use of equipment by clients with functional limitations:
- modular equipment;
 - small equipment (dumbbells, bands, tubes, balls, discs etc.)
- K13 The significance of healthy eating for clients with disabilities
- K14 Programme design and management for clients with disabilities including:
- the variables (frequency, intensity, time, type and principles of training, progression/regression, functional relevance, challenge) of exercise applied to clients with disabilities in both individual and group settings,
 - the guidelines to consider when analysing and adapting movement and selecting the warm-up, strength/power, dynamic balance, aerobic and flexibility training components of a programme for clients with disabilities,
 - systematic approaches to motivational, environmental and other factors that may assist clients with disabilities to adhere to physical activity,
 - the integration of supervised step by step functional (life-related) movement patterns and activities into all sessions (e.g. correct lifting technique; getting up and down from the floor, in and out of chairs, and other activities for daily living etc.)
 - modified equipment and activities appropriate to people with a disability
- K15 Physiology of specific disabilities and associated risk factors in relation to exercise to enable safe and effective exercise outcomes
- K16 Causes and consequences of disabilities in the context of their effect on exercise capacity and the role of physical activity in managing disability and enhancing health
- K17 Range of motion and stretching techniques to enable the inclusion of exercise variables to suit client's functional capacity
- K18 Relevant legislation and organisational policies and procedures to maintain the safety of clients and the confidentiality of client information
- K19 How to enable non-discriminatory treatment of people with a disability using inclusion principles
- K20 Social, political, cultural and historical issues that affect access to participation for people with a disability
- K21 Principles and practice of:
- Inclusion
 - Access and equity
 - Confidentiality
 - Empowerment/ disempowerment in relation to people with a disability
- K22 Use, care and maintenance of facility equipment to maintain safety of clients
- K23 Strategies that support people with disabilities to exercise their rights and independence

E3. Plan and deliver exercise for children and young people

This standard describes the competence required to plan and deliver physical activity and exercise to children and young people. A wide range of physical activity can make a major contribution to the health and fitness of children. Well planned and delivered programmes can enhance their confidence and self-esteem, establish good habits and attitudes and assist in their long term development and well-being. Most types of physical activity are appropriate to this client group, provided that programmes are designed to take account of their stage of maturation and that levels of supervision are properly maintained. Please note: this standard only covers working with apparently healthy children and young people. The specific age range of children and young people which exercise professionals are able to work with will depend on national guidelines and the specific qualifications and training held by the exercise professional. National requirements for working with children may be in place, for example the requirement for a police check. It is expected that instructors will already be qualified in exercise instruction before performing the skills in this standard.

Performance Criteria

Exercise professionals should be able to:

Task 1 - Collect and analyse information about children and young people

- 1.1 Establish and maintain an effective rapport with children and young people
- 1.2 Screen children and young people prior to commencement of exercise sessions and communicate results to parents/ guardians
- 1.3 Collect, record and analyse information about children and young people using safe and appropriate methods
- 1.4 Follow legal and ethical requirements for the security and confidentiality of client information
- 1.5 Recommend referral to appropriate medical or allied health professionals where necessary

Task 2 - Plan physical activity and exercise for children and young people

- 2.1 Plan and agree with child/ young person and or their parent/ guardian individual goals that are appropriate to the children and young people and their current stage of maturation
- 2.2 Plan and prepare objectives, activities and teaching styles into a balanced programme appropriate to the children and young people's individual goals and stage of maturation
- 2.3 Develop a variety of sessions for exercise that are fun, interactive and safe for a range of client groups of children and young people

Task 3 - Provide and evaluate physical activity and exercise for children and young people

- 3.1 Prepare children and young people for exercise and physical activity
- 3.2 Teach planned activities to the children and young people, adapting activities according to their needs and improving their performance on a progressive basis
- 3.3 Maintain the children and young people's motivation using safe and appropriate techniques
- 3.4 Maintain safety of children and young people
- 3.5 Monitor progress against agreed goals and adjust the programme accordingly
- 3.6 Support children and young people to take part in exercise and physical activity
- 3.7 Display level of supervision and appropriate monitoring for children and young people
- 3.8 Bring exercise and physical activity sessions to an end
- 3.9 Follow procedures for the protection of children and young people
- 3.10 Ensure safety of equipment and accessories for children and young people
- 3.11 Encourage children and young people, parents/ guardians to provide feedback on exercise sessions
- 3.12 Evaluate exercise sessions and modify exercise plans according to feedback received from clients and own evaluation

Knowledge and Understanding

Exercise professionals should know and understand:

- K1 The motivations and barriers to participation with particular reference to the stages of maturation in children and young people
- K2 Benefits and risks associated with exercise for children and young people
- K3 The importance of promoting the whole concept of health and fitness to children and young people including:
 - daily exercise,
 - nutrition,
 - wellness,
 - play and overall healthy lifestyle
- K4 Guidelines for the amount of physical activity for the health and well-being of children and young people
- K5 The difference between chronological and biological age
- K6 Bone formation with particular emphasis on potential injuries resulting from intense training changes relating to: bone density, jnt stability, function and posture and potential injuries resulting from repetitive training
- K7 The implications of growth and development during the various stages of child development
- K8 Preventative measures to avoid growth related injuries
- K9 The benefits of strength gains in children and young people
- K10 General responses of the cardiovascular system to training in children and young people
- K11 Ways of monitoring levels of exertion in children and young people
- K12 The importance of rehydration and body heat regulation in children and young people and how to take account of these
- K13 The physical, social, emotional and psychological benefits of children and young people taking part in regular physical activity
- K14 The motivational factors that may assist children and young people of all ages to enjoy the session and adhere to physical activity
- K15 Exercises that are safe and appropriate for children and young people of all ages, including alternatives to potentially harmful physical activities
- K16 Information which can be collected about children and young people:
 - personal goals,
 - medical history and medication,
 - signs that may be contraindications to some types of physical activity,
 - stage of maturation,
 - real and perceived barriers to physical activity,
 - exercise preferences
- K17 Methods of collecting information from children and young people:
 - interview involving parents/guardians
 - questionnaire involving parents/guardians,
 - adapted fitness tests,
 - observation
- K18 The importance of maintaining the security and confidentiality of information concerning children and young people
- K19 Anatomy and physiology related to children and young people
- K20 The key psychological changes that take place in children and young people
- K21 Principles of paediatric and exercise science to enable selection of exercises appropriate to participant characteristics and needs:
 - growth and maturation
 - coordination development and control
 - stability
 - posture in children
 - fundamental skills
 - aerobic capacity
- K22 Signs and symptoms of major types of injuries typical to children and young adolescents:
 - sprains
 - osteochondroses (severs, patellofemoral pain syndrome, legg-calve-perthes)
 - shoulder instability
 - joint hypermobility
 - injury risks related to exercise participation of children and young adolescents

- K23 The types of assessments that are suitable when assessing children and young people's readiness to participate and their stage of maturation
- K24 The types, durations, intensities, progressions and regressions of the following kinds of physical activity appropriate to children and young people of different ages and stages of maturation:
- cardiovascular,
 - weight-bearing,
 - body weight,
 - balance and co-ordination,
 - resistance equipment
- K25 The possible negative effects of physical activity on children and young people and how to avoid these
- K26 Why it is important to select equipment according to a child's height and how to do so
- K27 Why it is important to group children and young people according to peer groups and stages of maturation when working with groups
- K28 Why it is important to provide activities that encourage fun, enjoyment and socialisation and how to do so
- K29 The added importance of screening children and young people and the legal and ethical responsibilities screening places on the instructor
- K30 Levels and procedures for supervision and other aspects of health and safety when working with children and young people
- K31 The importance of rehydration and body heat regulation for children and young people
- K32 Recommended healthy eating options and dietary guidelines for children and young people to enable the provision of accurate information to clients
- K33 Stages of physical, social and emotional growth and development in children and young people to enable effective planning of programs and selection of appropriate exercises
- K34 Physiological safety considerations for children and young people's exercise including:
- suitability of equipment,
 - avoiding excessive training,
 - avoiding high impact moves
- K35 Psychological safety considerations for children and young people's exercise including:
- communication skills,
 - rules of behaviour,
 - rapport,
 - self-esteem,
 - depression and social issues
- K36 Accepted guidelines for Cardiovascular Training in young people including the use of interval training, Rate of Perceived Exertion, PAR-Q, heart rate charts.
- K37 Accepted guidelines for strength Training in young people including avoiding lifting maximal weight before physical maturity, use of heavy weights, programming for developmental age of the child, use of equipment, when it is acceptable to programme for progression in resistance, repetitions and sets, proper supervision
- K38 National and organisational guidelines for child protection
- K39 The procedure to follow when the exercise professionals suspects a child is at risk or being abused

E4. Plan and deliver exercise for ante and postnatal women

This standard describes how to plan and deliver exercise to ante and postnatal women. The standard describes how to adapt an exercise programme to the needs of ante and postnatal clients, taking into consideration the modifications, risks and benefits associated with exercise training for this special population. It is therefore expected that instructors will already be qualified in exercise instruction before performing the skills in this standard.

Performance Criteria

Exercise professionals should be able to:

Task 1 - Collect and analyse information about ante and postnatal clients

- 1.1 Explain the benefits and risks associated with physical activity for ante and postnatal clients
- 1.2 Establish and maintain an effective rapport with ante and postnatal clients taking into account possible emotional vulnerability and the need for empathy and sensitivity
- 1.3 Collect, record and interpret information about ante and postnatal clients using safe and appropriate methods
- 1.4 Follow legal and ethical requirements for the security and confidentiality of client information

Task 2 - Plan exercise for ante and postnatal clients

- 2.1 Plan and agree goals that are appropriate to ante and postnatal clients and their level of physical ability
- 2.2 Design an appropriate exercise programme based on information obtained during the screening
- 2.3 Plan and prepare objectives, activities and teaching styles that are appropriate to ante and postnatal clients' goals

Task 3 - Instruct exercise to ante and postnatal clients

- 3.1 Correctly demonstrate exercise technique
- 3.2 Adapt exercise programme according to the needs and fitness level of ante and postnatal clients
- 3.3 Make exercise modifications in consideration of the environment and the ability of ante and postnatal clients
- 3.4 Monitor and affirm or correct ante and postnatal clients' exercise technique
- 3.5 Teach planned activities to ante and postnatal clients, adapting activities according to their individual needs, including stage of pregnancy for ante-natal clients
- 3.6 Maintain ante and postnatal clients' motivation using safe and appropriate techniques
- 3.7 Monitor progress against agreed goals and adjust the programme accordingly
- 3.8 Assess, monitor and manage risk to clients effectively throughout the programme and plan for emergencies
- 3.9 Display the level of communication, supervision and appropriate monitoring recommended

Task 4 - Evaluate exercise for ante and postnatal clients

- 4.1 Evaluate the exercise session according to ante and postnatal clients' feedback and personal reflection
- 4.2 Provide feedback to ante and postnatal clients on their progress and any changes recommended
- 4.3 Identify modifications to the exercise plan where relevant to meet needs identified through evaluation

Knowledge and Understanding

Exercise professionals should know and understand:

- K1 The different approaches that apply to training antenatal and postnatal clients and the reasons for this
- K2 How to collect relevant information about ante and postnatal clients including:
- lifestyle,
 - medical and ante/post natal history,
 - physical activity history,
 - physical activity preferences,
 - attitude and motivation to participate,
 - current fitness level,
 - stage of readiness
- K3 How to use appropriate methods of collecting information from ante and postnatal clients:
- interview,
 - questionnaire,
 - physical assessment,
 - observation
- K4 How to plan exercise for ante and postnatal clients with a range of goals including :
- maintenance of cardiovascular fitness,
 - maintenance of functional muscular strength and endurance,
 - improved posture, pelvis and spine stability,
 - improved motor skills,
 - balance and coordination,
 - pelvic floor muscle education and improved strength and function,
 - resumption of appropriate safe and effective exercise post birth
- K5 The benefits of physical activity to ante and postnatal clients including:
- reduction of common pregnancy complaints (leg cramps, oedema, carpal tunnel syndrome, high/low blood pressure, constipation, haemorrhoids, varicose veins, gestational diabetes),
 - improved posture and body awareness,
 - better functional movement and pelvic floor muscle function,
 - possible reduction in low back pain,
 - weight control,
 - maintenance and recovery of cardiovascular and strength fitness levels,
 - improved maternal well-being (better sleep patterns, less anxiety and depression, improved ability to cope with stress),
 - possible reduction of length of labour and birth complications,
 - easier resumption of activity after pregnancy
- K6 The importance of resuming postnatal activity on an individual, gradual and progressive basis according to evidence-based guidelines
- K7 The types of real and perceived barriers that ante and postnatal clients may have to physical activity and how to take these into account
- K8 Motivational and other factors that may assist ante and postnatal clients to take up and adhere to physical activity
- K9 Sources of information and advice on working with ante and postnatal clients
- K10 The physiological and biomechanical changes that occur as a result of pregnancy to the following systems and how to change exercise programmes accordingly:
- cardiovascular system,
 - respiratory system,
 - musculoskeletal system – including the spine, the structure and anatomy of the pelvis and pelvic floor, back and abdominal muscle anatomy and general posture,
 - metabolic system,
 - endocrine system
- K11 How the physiological and biomechanical changes persist after pregnancy for weeks, months or even years
- K12 Key implications of the effects of pregnancy on exercise programming related to the stages of pregnancy

- K13 The importance of practical skills tailored to the needs of ante and postnatal clients including the importance of:
- functional activities,
 - observation,
 - monitoring and cueing skills to ensure safe exercise intensity,
 - toilet and hydration breaks,
 - technique correction (reinforcement of posture, joint alignment),
 - speed of instruction,
 - safe transitions,
 - pelvic floor awareness,
 - pros and cons of different positions to take into account:
 - supine and postural hypotensive syndromes,
 - pelvic girdle pain,
 - carpal tunnel syndrome,
 - rib pain,
 - gastric reflux and low back pain,
 - the standing position for functionality, balance and optimal pelvic floor muscle function,
 - considerations for the exercise environment (including temperature, trip hazards, ventilation, group size, choice/safe use of appropriate equipment)
- K14 Common antenatal problems relevant to exercise participation and how to respond to them (risks and symptoms of pelvic girdle pain including:
- the hypermobile woman,
 - knee, back and shoulder pain,
 - fatigue and interrupted sleep patterns,
 - effects on co-ordination, balance, concentration and memory
 - aorto/caval compression syndrome
- K15 Contraindications to exercise in pregnancy:
- absolute contraindications:
 - haemodynamically significant heart disease,
 - restrictive lung disease,
 - incompetent cervix/cerclage,
 - multiple gestation at risk for premature labour,
 - persistent second or third trimester bleeding,
 - placenta praevia after 26 weeks gestation,
 - premature labour during the current pregnancy,
 - ruptured membranes,
 - pregnancy induced hypertension – especially preeclampsia
 - relative contraindications:
 - severe anaemia,
 - unevaluated maternal cardiac arrhythmia,
 - chronic bronchitis,
 - poorly controlled type one diabetes,
 - extreme morbid obesity,
 - extreme underweight (body mass index <12),
 - history of extremely sedentary lifestyle,
 - intrauterine growth restriction in current pregnancy,
 - poorly controlled hypertension/pre-eclampsia,
 - orthopaedic limitations,
 - poorly controlled seizure disorder,
 - poorly controlled thyroid disease,
 - heavy smoker
 - warning signs to terminate exercise while pregnant
 - vaginal bleeding,
 - dyspnoea before exertion,
 - dizziness,
 - headache,
 - chest pain,
 - muscle weakness,
 - calf pain or swelling (need to rule out thrombophlebitis),
 - preterm labour,
 - decreased foetal movement,
 - amniotic fluid leakage

- K16 Complications/considerations affecting the resumption of exercise post birth:
- involution of the uterus,
 - placental site healing and lochia (bleeding),
 - secondary post-partum haemorrhage,
 - air embolism,
 - thrombosis,
 - infection (breast/uterine/urinary tract/caesarean wound site),
 - pelvic floor trauma/sensation loss/dysfunction/prolapse,
 - caesarean section,
 - abdominal muscle separation,
 - back or coccyx pain,
 - pelvic girdle pain,
 - pelvic torsion or instability,
 - knee pain,
 - carpal tunnel syndrome,
 - anaemia,
 - establishment of breastfeeding,
 - postnatal anxiety/depression,
 - separation anxiety (from baby),
 - extreme fatigue
- K17 The added importance of pre-activity screening including relevant information relating to previous pregnancies and births for antenatal and postnatal clients and the legal and ethical responsibilities screening places on the instructor
- K18 The special circumstances under which it would be good professional practice to obtain written health care provider consent
- K19 Relevance, incidence, timing and benefits of the postnatal check
- K20 The circumstances in which information may need to be exchanged with a health care professional about a physical activity programme for an antenatal or postnatal client
- K21 Evidence-based recommended guidelines for the frequency, intensity, type and duration of physical activity for previously active and previously inactive clients
- K22 Safe and effective modifications/adaptations and alternatives for antenatal and postnatal clients
- K23 Types of physical activity that should be avoided during pregnancy and recovery from pregnancy and the reasons for avoiding these
- K24 General guidelines on appropriate stretching for pregnant clients
- K25 The importance of pelvic floor exercises and how to teach these
- K26 How to assess and manage the particular risks to antenatal and postnatal clients during physical activity
- K27 Why antenatal clients should avoid hot and humid conditions when exercising
- K28 The importance of regular nutrition, hydration and the avoidance of fatigue and dramatic or sudden weight change for ante and postnatal clients
- K29 Appropriate clothing, footwear (dropped arches, oedema and over-active hamstrings and calf muscles contribute to changes in feet leading to increased size and the need for greater support during exercise) and breast support for antenatal and postnatal clients
- K30 The need to risk assess exercise/physical activity where babies are present



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