

Level 2 Certificate in Physical Activity and Health Improvement

December 2019

196 Guided Learning Hours (GLH)

286 Hours Total Qualification Time (TQT)

Ofqual Qualification Number 603/5292/9

Description

The objective of this qualification is to equip learners with the knowledge, understanding and skills to improve the health, wellbeing and fitness of individuals. The qualification is a unique combination of health improvement units and units to prepare individuals to competently instruct and manage circuit training sessions. Holders of this qualification, as members of the wider public health workforce, will be able to positively impact the health, wellbeing and fitness of their clients. Successful candidates will be able to support individuals in behaviour change that leads to healthier lifestyles, improved fitness and address local health issues.

The qualification provides a knowledge and understanding of the principles of health improvement and mental health and wellbeing, as well as how to build relationships with clients and the local context of health and wellbeing issues and measures for addressing them. The fitness units provide the knowledge, understanding and skills that will enable successful learners to work as a group circuit training instructor, and includes units in the principles of exercise, fitness and health; instructing and planning group circuit training; supporting clients who take part in exercise and physical activity; the anatomy and physiology of the body which is relevant to exercise and health and safety requirements of fitness environments.

The qualification is mapped to a range of National Occupational Standards that are relevant to the public health and fitness training sectors.

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Overview

The qualification consists of nine mandatory units:

- Unit 1 Principles of health improvement: T/502/7120
- Unit 2 Understanding mental health and wellbeing: F/615/2910
- Unit 3 Developing working relationships with clients: H/615/2866
- Unit 4: Exercise anatomy and physiology: Y/617/8851
- Unit 5: Health, safety and welfare in a fitness environment: D/617/8852
- Unit 6: Know how to support clients who take part in exercise and physical activity: H/617/8853
- Unit 7: Instructing group circuit training: K/617/885
- Unit 8: Know how to plan group circuit training: M/617/885
- Unit 9: Principles of exercise, fitness and health: T/617/8856

Unit 1: Principles of Health Improvement

Total Unit Time: 8 hours

Guided Learning: 8 hours

Unit Level: 2

Unit Number: T/502/7120

Summary of Learning Outcomes:

To achieve this unit a candidate must:

1. **Know how inequalities in health may develop and what the current policies are for addressing these, with reference to:**
 - 1.1 An example of health inequality, its effects and possible impact on local communities
 - 1.2 The factors leading to health inequalities
 - 1.3 The policies and methodologies for reducing inequalities in health
2. **Understand how effective communication can support health messages, with reference to:**
 - 2.1 The communication skills that are effective in communicating health messages
 - 2.2 Barriers to communication that may affect the understanding of health messages and strategies for overcoming these
 - 2.3 The role of effective communication in the promotion of health messages
3. **Know how to promote improvements in health and wellbeing to individuals, with reference to:**
 - 3.1 The western scientific model and World Health Organisation definitions of the term 'health and wellbeing'
 - 3.2 Positive and negative influences on health and wellbeing
 - 3.3 An example of an approach to the promotion of health and wellbeing
 - 3.4 Resources that can be used for promoting health and wellbeing
 - 3.5 How individuals can promote health and wellbeing
4. **Understand the impact of change on improving an individual's health and wellbeing, with reference to:**
 - 4.1 An example of behaviour change that can improve an individual's health and wellbeing
 - 4.2 How individuals can be encouraged to change their behaviour
 - 4.3 Positive and negative influences on behaviour change

Candidates successfully achieving this unit will have knowledge and understanding of facts, procedures and ideas in the principles of health improvement relevant to their job role to complete well-defined tasks and address straight-forward problems.

They will be able to interpret relevant information and ideas and will be aware of a range of information that is relevant to health improvement.

Indicative Content

1. Inequalities in health

- 1.1 *Examples of health inequalities:* information from sources such as joint strategic needs assessment data (JSNA), local health profiles, The Marmot Review (2010), Public Health Outcomes Framework and Healthy Life Years (HLY); differences in various health indicators such as obesity, hypertension and heart disease, cancer; local public health team priorities and how they are addressing inequalities with examples of positive outcomes.
- 1.2 *Factors leading to health inequalities:* effect of the wider determinants of health such as social class, gender, ethnicity, income, environment, age and education on health and life expectancy; use of national information to compare with geographical data to highlight these factors and the postcode lottery effect.
- 1.3 *Policies and methodologies for reducing inequalities in health:* broad aims of Government policies and examples of other public health policies such as Healthy Lives, Healthy People DH, 2010; Health and Social Care Act, DH, 2012; formation of Public Health England (PHE), 2013; Five Year Forward View (NHS England), Oct 2014; the origins and aims of Making Every Contact Count (MECC); National Institute for Health and Care Excellence (NICE) guidance (concept of NICE as a provider of guidance rather than specific examples); Methodologies such as asset based approaches; community-based approaches.

2. How effective communication can support health messages

- 2.1 *Methods of effective communication:* methods such as non-verbal, para-verbal, verbal and active listening; examples of these skills and their application; different types of questioning such as open, closed, leading and probing to encourage an open and frank exchange of views; examples of pacing and leading techniques; key elements of reflecting back: showing empathy and being non-judgemental, ensuring communication free from discrimination; consideration of individual's level of knowledge, cultural, religious and personal beliefs and circumstances.
- 2.2 *Barriers to communication:* barriers to communication such as level of knowledge, experiences and use of services, cultural, religious and personal beliefs and/or values; strategies for overcoming these such as use of translators, simplification of terms and words, repetition, written or visual explanations as appropriate, presenting balanced information, checking understanding; use of smart technology such as apps.

- 2.3 *Role of effective communication in promoting lifestyle/behaviour changes:* how brief interventions and simple statements of fact about health and healthy lifestyles can be used to prompt individuals to consider and make changes to their lifestyle; examples of brief interventions, their construction and use; ‘ask, assess, advise, assist’; use of signposting; checking knowledge and readiness to change; ensuring accuracy, currency, sufficiency and relevance of advice and information in ways which are appropriate to different people (e.g. culture, language or special needs).

3. Promote improvements in health and wellbeing

- 3.1 *Definitions of health and wellbeing:* definitions of health to include the western scientific model and World Health Organisation definition; dimensions of health; current definitions used by health care professionals.
- 3.2 *Positive and negative influences on health and wellbeing:* effect of lifestyle, attitudes, smoking, diet, physical activity, alcohol intake and sexual behaviours on health; role of family and friends; peer behaviour and modelling; effects of community and environment; health on the high street; attitudes towards taking responsibility for own health and wellbeing.
- 3.3 *Approaches to promotion of health and wellbeing:* definitions of health promotion; approaches to health promotion such as behavioural change, educational approach and social change; strengthening individuals and communities; immunisation programmes; improving the environment; improving access to healthcare facilities and resources; encouraging a healthy public policy; the concept of health as everyone’s business; MECC approach; NICE pathway for behaviour change; examples of approaches, incentives and rewards being used to improve public health.
- 3.4 *Resources:* sources of information and advice on health issues; advantages and disadvantages of information from different sources; resources for health improvement activities such as healthy eating and physical activity; health care centres and fitness centres; local resources available for targeted local health needs; Change4Life, Eatwell Guide, alcohol guidelines, physical activity recommendations, Five ways to mental wellbeing; NHS Choices Live Well; NHS One You campaign.
- 3.5 *Role of individuals:* role of individuals in improving health and supporting local communities, identifying resources and ensuring their accessibility; examples of specific workers such as health trainers, health champions and volunteers; importance of maintaining client confidentiality and methods for achieving this; building confidence and motivating clients to take responsibility for their own lifestyle choices through information and education; NICE guideline NG44 to “represent local needs and priorities” and take on peer and lay roles to reach marginalised and vulnerable groups; how to carry out peer interventions and reach individuals from same community or similar background.

4. Impact of change

- 4.1 *How behaviour change can improve an individual's health and wellbeing:* benefits to health and wellbeing, including mental health, of increasing physical activity, reducing alcohol intake, reducing/stopping smoking and changing diet; setting goals for physical activity and healthy eating; use of evidence from PHE local health profiles, JSNA or other sources regarding the success of different health improvement strategies.
- 4.2 *How individuals can be encouraged to change their behaviour:* different ways in which individuals can be encouraged to change their behaviour and be supported whilst doing so, such as how to motivate individuals, confidence building and self-efficacy; individual's perception of advantages and disadvantages of change and influence on decision making; simple cost-benefit analysis; awareness of the short, medium and longer-term consequences of health-related behaviour for themselves and others; positive benefits of health-enhancing behaviours; importance of planning changes in small steps over time; how social contexts and relationships may affect behaviour; planning for scenarios that will undermine positive changes; coping strategies to prevent relapse; setting and recording of SMART goals; benefits of sharing behaviour change goals with family and peers.
- 4.3 *Positive and negative influences on behaviour change:* the effect of an individual's attitude, values and beliefs on behaviour change; influence of peers; community and environment; social isolation; support networks; setbacks and lapses and how to support these; non-achievement; social norms; use of rewards; the effect of individual's capability and opportunities on motivation.

Assessment

The knowledge and understanding of the candidates is assessed by a multiple-choice examination. A candidate who is able to satisfy the learning outcomes will achieve a score of at least 20/30 in the examination.

The multiple choice examination is provided by RSPH. The examination consists of 30 questions. The duration of the examination is 45 minutes.

Unit 2: Understanding Mental Health and Wellbeing

Total Unit Time: 12 hours

Guided Learning: 8 hours

Unit Level: 2

Unit Number: F/615/2910

Summary of Learning Outcomes:

To achieve this unit a candidate must:

1. **Understand own attitudes and beliefs about mental health and wellbeing, *with reference to:***
 - 1.1 Own beliefs about mental illness
 - 1.2 Own level of awareness about mental health and wellbeing
 - 1.3 The impact that negative attitudes and behaviours of others may have on the mental health and wellbeing of individuals

2. **Know how the theoretical models used to describe mental health and wellbeing are applied, *with reference to:***
 - 2.1 The theoretical models that are used to describe mental health and wellbeing
 - 2.2 How the theoretical models are applied
 - 2.3 The main features of the following mental health conditions:
 - Anxiety
 - Depression
 - Bipolar disorder
 - Schizophrenia

3. **Understand how mental health and wellbeing can be improved, *with reference to:***
 - 3.1 How environmental, social and emotional/cognitive factors can impact on and protect mental health and wellbeing
 - 3.2 The 'Five Ways to Wellbeing'

4. **Identify opportunities to improve the mental health and wellbeing of individuals and populations, *with reference to:***
 - 4.1 A framework to develop a personal action plan to improve mental health and wellbeing
 - 4.2 Actions to include in a plan to improve mental health and wellbeing within an organisation or community

Candidates successfully achieving this unit will have knowledge and understanding of facts, procedures and ideas in mental health and wellbeing relevant to their job role to complete well-defined tasks and address straight-forward problems. They will

be able to interpret relevant information and ideas and will be aware of a range of information that is relevant to mental health and wellbeing.

Indicative Content

1. Own attitudes and beliefs about mental health and wellbeing

- 1.1 *Own beliefs about mental illness:* assess own beliefs; feelings, prejudices and preconceptions about the prevalence and nature of diagnosed and undiagnosed mental health conditions.
- 1.2 *Level of awareness about mental health and wellbeing:* assess own level of awareness; theoretical understanding, social, physical, emotional, spiritual, intellectual and environmental aspects of mental health and wellbeing, learner ambitions for further knowledge.
- 1.3 *Impact that negative attitudes and behaviours of others may have on the mental health and wellbeing of individuals:* impact; shame, blame, secrecy, isolation, social exclusion, discrimination, stigma.

2. How the theoretical models used to describe mental health and wellbeing are applied

- 2.1 *Theoretical models that are used to describe mental health and wellbeing:* outline the main points of the *Single Continuum Model*, *Dual continuum (Activation/Pleasure) Model* and the New Economic Foundation's *Dynamic Model of Mental Wellbeing*; main differences between different models.
- 2.2 *How the theoretical models are applied:* application of the three models; main differences in application.
- 2.3 *Main features of mental health conditions:* main features of anxiety, depression, bipolar disorder and schizophrenia; observable signs and characteristics.

3. How mental health and wellbeing can be improved

- 3.1 *How environmental, social and emotional/cognitive factors can protect mental health and wellbeing:* examples and use in improving wellbeing:
 - **Environmental determinants** structural factors and features of the natural and built environment, such as personal and community safety, green spaces, community facilities, housing, transport, may enhance community capacity for wellbeing;
 - **Social determinants** norms, networks and distribution of resources; wider relationships such as work, school, colleges, business, social networks; beneficial effect of a supportive community, social inclusion and social capital;

- **Emotional determinants** resources that buffer stress and/or determine outcomes and contribute to individual resilience, close relationships such as parents and parenting, family, friends, neighbours, social wellbeing, integration, belonging, inter-generational dependence, community networks/hubs.

How social and emotional capital can strengthen the mental health and wellbeing of individuals and act as protective factors such as through encouragement, support, sharing and inclusion.

3.2 *Five ways to wellbeing*: outline and application of the following strategies to improve wellbeing:

- **Connect** with the people around you, with family and friends, colleagues and neighbours, at home, work, school and in the community;
- **Be active** – go for a walk or run, cycle, garden, dance;
- **Take notice** – be aware of the world around you and what you are feeling;
- **Keep learning** – try something new, rediscover an old interest, take on new responsibilities;
- **Give** – do things for other people, volunteer your time, join a community group.

4. **Opportunities to improve the mental health and wellbeing of individuals and populations**

4.1 *Framework to develop a personal action plan*: examples of frameworks such as setting and recording of individual goals; Five Ways to Wellbeing; readiness for change.

4.2 *Actions to include in plan to improve mental health and wellbeing within an organisation or community*: examples of actions which HR staff or councillors, for example, could implement to address the environmental, social and individual factors identified in 3.1 at a population level; relevant examples of own organisation's policies or community's approach to mental health and wellbeing.

Assessment

The knowledge and understanding of the candidates is assessed by completion of a learner workbook which covers each of the learning outcomes. The completed workbooks are assessed by the centre. Assessment decisions are subject to scrutiny by RSPH.

The workbook is provided by RSPH and is available from **Resources** in the Centre area of the Qualifications section of the RSPH website (www.rsph.org.uk).

Centres can apply to RSPH for permission to develop their own workbooks or use an alternative assessment method, such as a portfolio of evidence or assignments. Alternative assessment methods or workbooks cannot be used without the written approval of RSPH.

Unit 3: Developing working relationships with clients

Total Unit Time: 8 hours

Guided Learning: 6 hours

Unit Level: 2

Unit reference number: H/615/2866

Summary of Learning Outcomes:

To achieve this unit a candidate must:

1. **Know how to develop and maintain working relationships with clients, with reference to:**
 - 1.1 How different communication skills can be used to develop and maintain working relationships with clients
 - 1.2 Methods for maintaining trust with clients
 - 1.3 Good working practices that will help to develop and maintain working relationships with clients
2. **Know how to motivate and support clients to improve their health and wellbeing, with reference to:**
 - 2.1 Methods that can be used to motivate clients to improve their health and wellbeing
 - 2.2 The local services available to clients and how they can be used to support them
3. **Understand the role of support networks in improving the health and wellbeing of individuals, with reference to:**
 - 3.1 The benefits of support networks for improving health and wellbeing
 - 3.2 How an individual could take advantage of support networks to improve their health and wellbeing
 - 3.3 The negative influences of peers and the wider community on an individual's health and wellbeing
4. **Carry out effective communication with clients by being able to meet the following assessment criteria:**
 - 4.1 Use a range of communication skills to deliver a health and wellbeing message
 - 4.2 Vary the style of delivery to ensure it remains appropriate to the health and wellbeing message and individual
 - 4.3 Respond appropriately to questions and signpost opportunities to health improvement services.
 - 4.4 Ensure that the health and wellbeing message has been understood

Candidates successfully achieving this unit will have knowledge and understanding of facts, procedures and ideas in the development of working relationships relevant

to their job role to complete well-defined tasks and address straight-forward problems. They will be able to interpret relevant information and ideas and will be aware of a range of information that is relevant to the development of working relationships.

They will be able to select and use relevant cognitive and practical skills to complete well-defined, generally routine tasks and address straightforward problems with respect to carrying out effective communication with clients. They will be able to identify, gather and use relevant information to inform their actions and identify how effective their actions have been.

Indicative content

1. How to develop and maintain working relationships with clients

- 1.1 *Different communication skills:* active listening; verbal, para-verbal and non-verbal messages; showing empathy and being non-judgmental; tone of voice and sensitivity to individual's level of knowledge; using feedback to reflect and clarify client's meaning; taking responsibility for mistakes and being honest; courtesy; avoiding criticism; pacing and leading techniques; use of open, closed, leading and probing questions.
- 1.2 *Methods for maintaining trust with clients:* professional boundaries, client confidentiality and its importance; reliability of information, values and ethics; accuracy, currency, sufficiency and relevance of advice and information; able to provide assurances around client identifiable data re: consent, data security and data sharing, compliance with organisational protocol and information governance legislation.
- 1.3 *Good working practices:* honesty, boundaries, confidence to have a conversation; clear and tailored advice; avoiding jargon; use of technology where appropriate; not overpromising, pitching at correct level and appropriate pacing; being able to address the client's issues, adapting communication method; displaying knowledge of health and wellbeing; 'ask, held; building rapport by mirroring and matching; using client's name.

2. How to motivate and support clients to improve their health and wellbeing

- 2.1 *Methods that can motivate clients:* enabling approach to building a relationship with a client: mutual respect, promoting equal status and giving clients a sense of self responsibility; facilitating development of confidence and skills, promoting choice; using models such as theory of planned behaviour and reasoned action model; awareness of the short, medium and longer-term consequences of health-related behaviour for themselves and others; highlighting how social context and relationships may influence behaviour; simple cost-benefits analysis; positive benefits of health-enhancing behaviours; planning changes in small steps over time; setting and recording

of SMART goals; identifying rationale for change, triggers and coping strategies to prevent relapse.

- 2.2 *Local services available to clients and how they can be used to support them:* examples of local services such as food banks, health checks and screenings, mental health and counselling, dementia-friendly community; diet and exercise classes, Age UK, Men in Sheds, Green Gyms, volunteering schemes, health centres and sports centres; effect of the services on health and wellbeing; local incentives and rewards to motivate clients.

2. The role of support networks in improving the health and wellbeing of individuals

- 3.1 *Benefits of support networks:* role of family, friends, work colleagues in assisting change; sharing experiences and involving in activities; providing encouragement and advice; mentoring and coaching; modelling behaviours and lifestyles.
- 3.2 *How to take advantages of support networks:* use of support networks to improve a range of client health issues such as social isolation; increasing motivation; giving more purpose and structure to client's lifestyle.
- 3.3 *Negative influences of peers and community:* Examples from the 'unhealthy high street' leading to unhealthy behaviours and choices; identifying peer pressure, how it affects behaviours and strategies for dealing with it; negative peer group behaviours such as eating takeaways or binge drinking; barriers to change, temptation and instant gratification.

3. Effective communication

- 4.1 *Range of communication skills:* communication skills such as organising the conversation; using language appropriate to the client and topic; using suitable non-verbal messages and responding to client's non-verbal messages; asking effective questions; active listening and reflecting back to check understanding; keeping the conversation going; being aware of client's culture and gender and how they influence beliefs.
- 4.2 *Vary the style of delivery:* style, pitch and pace of delivery is varied and remains appropriate to the subject and client; assertiveness is suitable; listening is engaged and attentive and responsive.
- 4.3 *Responding appropriately to questions during the exercise and signposting:* questions are responded to in an appropriate manner for the client and topic; opportunities are taken to signpost health improvement services during the conversation and information on referral pathways is accurate; boundaries of knowledge and expertise are not exceeded when responding to questions; paraphrasing to check understanding; admitting to not knowing the answer.

- 4.4 *Ensure that the health and wellbeing message is understood:* consideration of barriers to communication, such as culture, gender and language; eye contact; proximity to individual during communication; addressing misunderstandings; repeating key messages, use of questions, summarising.

Assessment

The knowledge and understanding of the candidates is assessed by completion of a learner workbook which covers each of the learning outcomes. The completed workbooks are assessed by the centre. Assessment decisions are subject to scrutiny by RSPH.

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Unit 4: Exercise anatomy and physiology

Total Unit Time: 60 hours

Guided Learning: 41 hours

Unit Level: 2

Unit reference number: Y/617/8851

Summary of Learning Outcomes:

To achieve this unit a candidate must:

- 1. Understand the anatomy and physiology of the human circulatory system and its importance to exercise, with reference to:**
 - 1.1 The structure and function of the heart and its location within the body
 - 1.2 The cardiac, pulmonary and systemic circulatory systems
 - 1.3 Blood pressure and the effect of exercise on this

- 2. Understand the anatomy and physiology of the human respiratory system and its importance to exercise, with reference to:**
 - 2.1 The structure and function of the lungs and their location within the body
 - 2.2 How the lungs are ventilated and the effect of exercise on this
 - 2.3 The role of the alveoli in gaseous exchange
 - 2.4 How energy is produced by respiration and the effect of aerobic and anaerobic exercise on this

- 3. Understand the anatomy and physiology of the skeletal system and its importance to exercise, with reference to:**
 - 3.1 The structure and function of bones
 - 3.2 How bones are attached together at joints to form the skeleton
 - 3.3 The structure and function of the axial and appendicular skeleton
 - 3.4 How exercise affects and is affected by the skeletal system

- 4. Understand the anatomy and physiology of the neuro-muscular system and its importance to exercise, with reference to:**
 - 4.1 The structure and function of the three types of muscle tissue and their location within the body
 - 4.2 The role and function of the nervous system
 - 4.3 How muscles contract as a result of nerve impulses
 - 4.4 How the contraction of muscles produces movement at joints
 - 4.5 How exercise affects and is affected by the neuro-muscular system

Candidates successfully achieving this unit will have knowledge and understanding of facts, procedures and ideas in anatomy and physiology relevant to their job role to complete well-defined tasks and address straight-forward problems. They will be able to interpret relevant information and ideas and will be aware of a range of information that is relevant to exercise anatomy and physiology.

Indicative Content:

1. The anatomy and physiology of the human circulatory system and its importance to exercise

- 1.1 *The structure and function of the heart and its location within the body:* the heart as a double pump system consisting of four chambers; the right atrium, left atrium, right ventricle and left ventricle; separation of the chambers by the septum and valves; location of semi-lunar valves, bicuspid valve and tricuspid valve within the heart; position of the pulmonary artery, aorta, pulmonary vein and vena cava; role of the heart in circulating blood around the body; location of the heart within the body with respect to other organs and the diaphragm.
- 1.2 *The cardiac, pulmonary and systemic circulatory systems:* the cardiac circulatory system; flow of oxygenated blood through the heart, how contraction of the chambers of the heart pumps blood through the heart, importance of the heart valves; the pulmonary circulatory system, pulmonary arteries and veins, flow of oxygenated and deoxygenated blood between the heart and lungs; the systemic circulatory system, flow of oxygenated and deoxygenated blood through the arteries, veins and capillaries of the systemic circulatory system; structure of veins, arteries and capillaries, role of these blood vessels in the movement of blood through the circulatory system.
- 1.3 *Blood pressure and the effect of exercise on this:* Definition of blood pressure, systolic and diastolic blood pressure; measurement of blood pressure; effect of low and high blood pressure; changes in blood pressure with age; effect of exercise on blood pressure and heart rate; comparison of blood pressure and heart rate between 'fit' and 'unfit' individuals.

2. The anatomy and physiology of the human respiratory system and its importance to exercise

- 2.1 *The structure and function of the lungs and their location within the body:* Structure of the lungs to include lobes, bronchi, bronchioles, alveoli and pleural membranes; connection of the lungs to the pulmonary arteries and pulmonary veins; role of the lungs in oxygenating and deoxygenating the blood; location of the lungs within the thoracic cavity and in relation to the heart and diaphragm.
- 2.2 *How the lungs are ventilated and the effect of exercise on this:* Ventilation of the lungs by changes in the volume of the thoracic cavity; role of intercostal muscles and the diaphragm; inspiration and expiration; resting ventilation and forced ventilation; passage of air through the respiratory tract from the nose to the alveoli; vital capacity, tidal volume and total lung capacity; effect of exercise

on rate and depth of breathing and the amount of carbon dioxide expired; long-term effect of exercise on vital capacity and tidal volume.

2.3 *The role of the alveoli in gaseous exchange:* Differences between inspired and expired air; structure of the alveolus and associated capillary network; diffusion gradients between the alveolus and capillaries; diffusion of gases between the alveolus and capillaries during expiration and inspiration; flow of deoxygenated and oxygenated blood.

2.4 *How energy is produced by respiration and the effect of aerobic and anaerobic exercise on this:* Energy production by the breakdown of carbohydrates, fats and protein; role of ATP and ADP in energy storage and release; comparison of ATP production by breakdown of carbohydrates, fats and protein; comparison of energy production by aerobic and anaerobic respiration of glucose; end-products of aerobic and anaerobic respiration; oxygen debt and the effect of lactic acid on muscles; effect of aerobic and anaerobic exercise on respiration and the oxygen debt; how long-term exercise increases tolerance to lactic acid; glycogen and fat as energy stores in the body.

3. The anatomy and physiology of the skeletal system and its importance to exercise

3.1 *The structure and function of bones:* Classification of bones into long, short, flat, irregular and sesamoid; examples of each bone type; role of bones in support, protection, movement and manufacture of blood; location and function of sesamoid bones; bone structure as exemplified by a long bone, to include articular cartilage, spongy bone, periosteum, marrow cavity, compact bone, head (diaphysis) and shaft (epiphysis), mineral composition of bone and how this changes over time; role of cartilage, osteoblasts, osteoclasts, ossification and calcification in bone growth, remodelling and repair.

3.2 *How bones are attached together at joints to form the skeleton:* Types of joint; fixed, synovial, hinge, ball and socket and sliding; examples of each type; how movement can occur at joints, the range of movement possible at the shoulder, elbow, wrist, hips, knee and ankle; structure of a synovial joint to include cartilage, ligaments, synovial membrane and synovial fluid; role of synovial fluid in a joint.

3.3 *The structure and function of the axial and appendicular skeleton:* The skeleton as a rigid framework which supports the body and maintains body shape, protects the organs and provides a surface for muscle attachment to allow movement; the axial skeleton as the central core, bones that form the axial skeleton; the appendicular skeleton consists of the pelvic and pectoral girdles, upper and lower limbs; bones that form the girdles and limbs; role of the spine in posture and movement; defects of the spine which result in postural deviations such as kyphosis, lordosis and scoliosis; effect of pregnancy on posture.

3.4 *How exercise affects and is affected by the skeletal system:* Long term and short term effects of exercise on the skeletal system, such as changes in bone

density, remodelling of bones, increased flexibility and agility due to increased production of synovial fluid and stronger ligaments; negative effects such as sprains, cartilage damage and dislocation; implications of exercise on the skeletal system of young people, antenatal and postnatal women and older people.

4. The anatomy and physiology of the neuro-muscular system and its importance to exercise

- 4.1 *The structure and function of the three types of muscle tissue and their location within the body:* Striated structure of skeletal muscle and muscle fibres, importance of myosin and actin filaments and sarcomere length; structure of cardiac and smooth muscle compared to that of skeletal muscle; location of cardiac and smooth muscle in the body and of the following skeletal muscles: Anterior muscles (pectoralis major, anterior deltoids, medial deltoids, biceps, rectus abdominis, obliques, transverse abdominis, hip flexors, quadriceps, adductors, anterior tibialis), posterior muscles (trapezius, rhomboids, medial deltoids, posterior deltoids, triceps, latissimus dorsi, erector spinae, gluteals, abductors, hamstrings, gastrocnemius, soleus), diaphragm, intercostals.
- 4.2 *The role and function of the nervous system:* Role of the nervous system in processing and responding to information; nerve impulses and synapses; the reflex arc; sensory and motor neurones.
- 4.3 *How muscles contract as a result of nerve impulses:* Outline of sliding filament theory of muscle contraction; importance of sarcomere length; all-or-nothing response; comparison of slow / tonic skeletal muscle fibres with fast / twitch skeletal muscle fibres; comparison of skeletal muscle, smooth muscle and cardiac muscle with respect to innervation, speed of contraction and muscle fatigue.
- 4.4 *How the contraction of muscles produces movement at joints:* Connection of muscles to bones by tendons; movement at joints by contraction / relaxation of antagonistic muscles; different movements at joints due to action of extensor, adductor, abductor, protractor, retractor and rotator muscles; movement of specific limbs due to the following named muscles: Pectoralis major (adduction of arm, horizontal flexion of arm), deltoids (abduction of the shoulder, flexion and extension of the shoulder), biceps (flexion of the elbow), rectus abdominis (flexion of the spine), obliques (lateral flexion and rotation of the spine), transverse abdominis (isometric stabilisation of the spine), hip flexors (flexion of the hip), quadriceps (extension of the knee, flexion of the hip), adductors (adduction of the hip), anterior tibialis (dorsi flexion of the ankle), trapezius (extension of the neck, elevation of the shoulder, depression of the scapula, retraction of the scapula), triceps (extension of the elbow), latissimus dorsi (adduction of the shoulder, shoulder extension), erector spinae (extension of the spine), gluteals (extension of the hip), abductors (abduction of the hip), hamstrings (flexion of the knee, extension of the hip), gastrocnemius (plantar flexion of the ankle, assist flexion of knee), soleus (plantar flexion of ankle with bent knee), joint actions during different exercises.

- 4.5 *How exercise affects and is affected by the neuro-muscular system:* Effect of exercise on muscle size and strength, fatigue and co-ordination; number and size of mitochondria within the muscle; changes in blood supply to the muscle; short and long term effects of exercise; muscle damage and recovery times.

Assessment

The knowledge and understanding of the candidates is assessed by centre-devised assessments. Assessment can take the form of multiple-choice examination, written examination, assignments, oral questioning or a portfolio of evidence.

Centres should ensure that the assessment method(s) adopted assess the candidate across all of the learning outcomes and assessment criteria of the unit.

Assessed candidate work is subject to scrutiny by RSPH.

A candidate assessment summary form must be used to cross-reference assessment evidence to the assessment criteria. This is available in the Centre Area of the Qualifications section of the RSPH web-site (www.rsph.org.uk).

Unit 5: Health, safety and welfare in a fitness environment

Total Unit Time: 40 hours

Guided Learning: 29 hours

Unit Level: 2

Unit reference number: D/617/8852

Summary of Learning Outcomes:

To achieve this unit a candidate must:

1. **Know the emergency procedures required in a fitness environment, with reference to:**
 - 1.1 Emergency situations that are typical of a fitness environment
 - 1.2 The role of staff and external services in the event of an emergency
 - 1.3 How to ensure the safety of individuals during an emergency

2. **Know the requirements for health and safety in a fitness environment, with reference to:**
 - 2.1 The importance of health and safety in a fitness environment
 - 2.2 The legal, regulatory and documentary requirements relevant to health and safety in a fitness environment
 - 2.3 The role of staff with designated responsibilities for health and safety in a fitness environment
 - 2.4 The requirements for health and safety risk assessments in a fitness environment

3. **Know how to safeguard children and vulnerable adults in a fitness environment, with reference to:**
 - 3.1 The meaning of safeguarding children and vulnerable adults and the statutory agencies that are responsible for this
 - 3.2 Types and signs of abuse which a fitness trainer may encounter
 - 3.3 The organisational policies and procedures relating to safeguarding
 - 3.4 The fitness trainer's responsibilities with respect to safeguarding

Candidates successfully achieving this unit will have knowledge and understanding of facts, procedures and ideas in health, safety and welfare relevant to their job role to complete well-defined tasks and address straight-forward problems. They will be able to interpret relevant information and ideas and will be aware of a range of information that is relevant to health, safety and welfare in a fitness environment.

Indicative Content:

1. Emergency procedures required in a fitness environment

- 1.1 *Emergency situations that are typical of a fitness environment:* Emergency situations that are likely to affect a small number of individuals, such as an accident or medical emergency involving staff or clients and are likely to occur relatively often; emergency situations that will affect a greater number of individuals and are relatively unlikely to occur, such as fire, a bomb threat, terrorist attack, building collapse or chemical spillage; situations that may require emergency evacuation of the premises.
- 1.2 *Role of staff and external services in the event of an emergency:* Role of staff such as duty manager, supervisors, trainers / instructors, reception and office staff; role of designated emergency staff such as health and safety manager, responsible person, fire marshals and first-aiders; compliance with and implementation of emergency plans and procedures; role of the emergency services and armed forces as appropriate.
- 1.3 *How to ensure the safety of individuals during an emergency:* Emergency action plans and procedures; raising the alarm; escape routes and safe evacuation procedures; location of assembly points, temporary refuges and evac chairs; personal emergency evacuation plans; reporting procedures; personal conduct in the event of an emergency.

2. Requirements for health and safety in a fitness environment

- 2.1 *Importance of health and safety in a fitness environment:* Importance of H&S in protecting customers and staff, providing a safe, risk-free environment and complying with legislative requirements; financial and reputational risks of poor health and safety.
- 2.2 *Legal, regulatory and documentary requirements relevant to health and safety in a fitness environment:* Main duties and responsibilities of employers to comply with the Health and Safety at Work etc Act 1974, Control of Substances Hazardous to Health Regulations (COSHH) and Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR); responsibilities to include safe-guarding the H&S at work of employees, non-employees and visitors, consulting with employees, provision of personal protective equipment, suitable and sufficient training, first aid facilities, welfare facilities and health and safety policies where required; ensuring safe systems of work are in place and risk assessments are carried out as appropriate.

Main duties and responsibilities of employees with regard to health and safety, to include compliance with the Health and Safety at Work etc Act 1974, Control of Substances Hazardous to Health Regulations (COSHH) and Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) with regard to the health and safety of themselves and others; need to co-operate with the employer by reporting any health and safety issues (such as faulty equipment, hazards, missing guards) accidents and near misses or ill-health;

responsibility to correctly use PPE and report any defective or missing personal protective equipment; responsibility to follow the health and safety procedures laid down by their employer; need to ensure their personal behaviour does not put themselves or others at risk

Documentary requirements such as health and safety policies, written risk assessments, safe systems of work, incident recording, training records

- 2.3 *Role of staff with designated responsibilities for health and safety in a fitness environment:* Role of H&S manager, supervisors, duty manager, staff representatives.
- 2.4 *Requirements for health and safety risk assessments in a fitness environment:* Purpose and use of risk assessments; when risk assessments are needed (the 'six-pack' of regulations); specific requirements for pregnant women and young people; requirements for ensuring risk assessments are available to employees; stages in risk assessment; typical content of risk assessments; responsibility of employees to follow risk assessments; COSHH risk assessments; how to identify hazards; possible hazards in a fitness environment, their risk assessment and control methods; action to take if risks cannot be controlled by the individual.

3. How to safeguard children and vulnerable adults in a fitness environment

- 3.1 *The meaning of safeguarding children and vulnerable adults and the statutory agencies that are responsible for this:* Definition of safeguarding; requirements of Section 11 of the Children Act 2004; requirements of Safeguarding Vulnerable Groups Act 2006; agencies with a responsibility for safeguarding such as Disclosure and Barring Service (DBS), police, local authority, NSPCC.
- 3.2 *Types and signs of abuse which a fitness trainer may encounter:* Types of abuse, to include verbal, physical, sexual, emotional and neglect; signs of abuse such as changes in normal attitudes or behaviours, bruises and scratches, nervousness, being withdrawn and reluctance to engage / participate.
- 3.3 *The organisational policies and procedures relating to safeguarding:* How policies and procedures are designed to safeguard children and vulnerable adults; screening of staff and requirement for DBS checks; reporting arrangements and whistle-blowing; the six principles of safe-guarding (empowerment, prevention, proportionality, protection, partnership and accountability); staff training requirements for safeguarding; safeguarding of staff from both abuse and allegations of abuse; need for confidentiality.
- 3.4 *The fitness trainer's responsibilities with respect to safeguarding:* Responsibility to report suspicions of abuse and comply with organisational procedures; need to ensure that own actions do not lead to suspicions / allegations of abuse; procedures for protecting against accusations of abuse.

Assessment

The knowledge and understanding of the candidates will be assessed by centre-devised assessments. Assessment can take the form of multiple-choice examination, written examination, assignments, oral questioning or a portfolio of evidence.

Centres should ensure that the assessment method(s) adopted assess the candidate across all of the learning outcomes and assessment criteria of the unit.

Assessed candidate work is subject to scrutiny by RSPH.

A candidate assessment summary form must be used to cross-reference assessment evidence to the assessment criteria. This is available in the Centre Area of the Qualifications section of the RSPH web-site (www.rsph.org.uk).

Unit 6: Know how to support clients who take part in exercise and physical activity

Total Unit Time: 20 hours

Guided Learning: 13 hours

Unit Level: 2

Unit reference number: H/617/8853

Summary of Learning Outcomes:

To achieve this unit a candidate must:

- 1. Know how to provide a good service to clients and work effectively with them; *with reference to:***
 - 1.1 The requirements for good customer service
 - 1.2 The importance of effective working relationships
 - 1.3 The role of good communication skills as part of customer service
 - 1.4 How to obtain information to meet customer requirements

- 2. Understand how to support clients in their exercise / physical activity programmes; *with reference to:***
 - 2.1 The barriers to exercise / physical activity that may be experienced by clients and how to overcome them
 - 2.2 How to strengthen motivation and adherence with respect to physical activity and exercise
 - 2.3 How a behaviour change approach can assist motivation and adherence with respect to physical activity and exercise

Candidates successfully achieving this unit will have knowledge and understanding of facts, procedures and ideas for supporting clients who take part in exercise and physical activity relevant to their job role to complete well-defined tasks and address straight-forward problems. They will be able to interpret relevant information and ideas and will be aware of a range of information that is relevant to supporting clients.

Indicative Content:

1. How to provide a good service to clients and work effectively with them

- 1.1 *Requirements for good customer service:* Importance of equal opportunities, equality and diversity and how to demonstrate this; how to care for and look after the client to the benefit of the client and the organisation, ensuring that client needs are met promptly and satisfactorily; complaints procedures and the importance of dealing with complaints positively.
- 1.2 *Importance of effective working relationships:* Benefits to the organisation of presenting a positive image and having effective working relationships with clients; benefits to the client of an effective working relationship; client expectations and how to exceed this.
- 1.3 *Role of good communication skills as part of customer service:* Importance of communication skills for customer service and effective working with clients; role of body language, active listening, eye-contact, responsiveness and verbal skills in communication; use of these aspects of communication in motivating clients.
- 1.4 *How to obtain information to meet customer requirements:* Where information relevant to a client's needs can be obtained, such as web-sites, client feedback, gym membership applications and client goals.

2. How to support clients in their exercise / physical activity programmes

- 2.1 *The barriers to exercise / physical activity that may be experienced by clients and how to overcome them:* Barriers that clients may face which could restrict them with regards to physical activity and exercise, such as limitations due to cost, time and injury / illness; lack of confidence, motivation and access; how these barriers can be overcome.
- 2.2 *How to strengthen motivation and adherence with respect to physical activity and exercise:* Importance of motivation and adherence with respect to physical activity and exercise; methods for strengthening motivation and adherence such as incorporating a client's preferences into training programmes, providing incentives and rewards, helping the client develop their own strategy; examples of incentives and rewards.
- 2.3 *How a behaviour change approach can assist motivation and adherence with respect to physical activity and exercise:* Meaning of behaviour change; stages of behaviour change; role of antecedents in behaviour change and examples of these for physical activity and exercise; why clients should take responsibility for their physical activity and exercise goals; use of SMART objectives in goal-setting; short, medium and long-term goal-setting; characteristics of these goals; relapse; reviewing and revising goals.

Assessment

The knowledge and understanding of the candidates will be assessed by centre-devised assessments. Assessment can take the form of multiple-choice examination, written examination, assignments, oral questioning or a portfolio of evidence.

Centres should ensure that the assessment method(s) adopted assess the candidate across all of the learning outcomes and assessment criteria of the unit.

Assessed candidate work is subject to scrutiny by RSPH.

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Unit 7: Instructing group circuit training

Total Unit Time: 20 hours

Guided Learning: 20 hours

Unit Level: 2

Unit reference number: K/617/8854

Summary of Learning Outcomes:

To achieve this unit a candidate must:

1. **Know how to provide group training sessions, with reference to::**
 - 1.1 How to arrange a sequence of training exercises to develop cardio-vascular and muscle fitness and motor skills
 - 1.2 Methods for modifying exercises to enable progression and regression
 - 1.3 How to manage a group of individuals during training sessions

2. **Carry out preparations for group circuit training, by being able to:**
 - 2.1 Plan the circuit training programme
 - 2.2 Prepare relevant exercise equipment and the environment for group circuit training
 - 2.3 Prepare participants for circuit training

3. **Carry out group training, by being able to:**
 - 3.1 Provide instructions to participants by use of effective demonstrations and communication
 - 3.2 Advise participants on their performance and technique
 - 3.3 Ensure the needs of individuals are met during group training programmes
 - 3.4 Conclude a training session safely and effectively

4. **Carry out an evaluation of a group training session, by being able to:**
 - 4.1 Obtain feedback from participants at the end of a training session
 - 4.2 Review own performance of instructing a group training session

Candidates successfully achieving this unit will have knowledge and understanding of facts, procedures and ideas in instructing group training sessions relevant to their job role to complete well-defined tasks and address straight-forward problems. They will be able to interpret relevant information and ideas and will be aware of a range of information that is relevant to instructing group training sessions.

Candidates will be able to select and use relevant cognitive and practical skills to complete well-defined, generally routine tasks and address straightforward problems

with respect to instructing a group training session. They will be able to identify, gather and use relevant information to inform their actions and identify how effective their actions have been.

Indicative Content:

1. How to provide group training sessions

- 1.1 *How to arrange a sequence of training exercises to develop cardio-vascular and muscle fitness and motor skills:* Identification of suitable exercises for cardiovascular and muscular fitness and motor skill development and client goals; safety and effectiveness of exercise sequence.
- 1.2 *Methods for modifying exercises to enable progression and regression:* Exercises and equipment selected enable progression, regression and use of alternatives for development of cardiovascular and muscle fitness, endurance and motor skills.
- 1.3 *How to manage a group of individuals during training sessions:* Need to work safely with a group; provide motivation and encouragement; communication skills required for group management; use of demonstrations and music during sessions; how to keep control of the group to ensure sessions run to time and include appropriate recovery periods.

2. Carry out preparations for group circuit training

- 2.1 *Plan the circuit training programme:* Own preparation for session, to include time management and presentation of a professional image; need to review planning documents to ensure validity and maintain organisation of session; confirm and agree plans with clients; revise and adjust plans as appropriate according to client needs and changed circumstances.
- 2.2 *Prepare relevant exercise equipment and the environment for group circuit training:* Suitable equipment identified that is safe to use, appropriate to the clients, enables all required components of fitness to be addressed and allows for adaptation and progression; environment is assessed prior to the session to ensure suitability of temperature, flooring, space / layout, lighting, ventilation and accessibility.
- 2.3 *Prepare participants for circuit training:* Ensure clients feel welcome and at ease by own approachable manner and establishment of a rapport; assess competency level of clients by observation and use of non-judgemental questions, including presence of injuries or medical conditions; purpose and value of the session, exercises, warm-up and cool down explained; warm up activities used that include pulse raising, mobility and pre-stretching with progression in intensity to allow skill rehearsal and environmental familiarisation; physical and technical demands of the exercise explained to ensure client understanding; emergency procedures outlined to include location of fire exits and muster points.

3. Carry out group training

- 3.1 *Provide instructions to participants by use of effective demonstrations and communication:* Explanations and demonstrations given, using different equipment across all components of the circuit, that are technically correct and focus on posture, alignment, lifting techniques and speed of movement; communication is appropriate to client needs and includes both verbal and non-verbal methods; volume, pitch and projection of voice is appropriate to the format of the exercise, environment and needs of individual clients.
- 3.2 *Advise participants on their performance and technique:* Observe clients across all components of the training exercise; use a variety of teaching positions, including mirroring, to ensure an appropriate response to client needs and that clients can perform the exercises as instructed; monitor safety and intensity of exercises by use of a recognised tool such as RPE or HR and check for over-exertion, medical illness, loss of technique and misuse of equipment; correct and reinforce exercise technique by the use of appropriate methods such as changing teaching position, questioning, verbal and non-verbal communication and mirroring; provide feedback during the session which is timely, clear and motivational.
- 3.3 *Ensure the needs of individuals are met during group training programmes:* Adapt and progress / regress exercises as required to suit individual client needs; present a positive image of yourself and organisation by timekeeping, appearance, professional behaviour, good working relationships and customer care; establish effective working relationships with clients through mutual respect and professionalism; communicate effectively and positively by use of suitable language, tone of voice, active listening, open body language and eye contact; adopt motivational styles that are suitable for the clients and exercise format by the use of pitch, tone and language to stimulate intrinsic and peer motivation.
- 3.4 *Conclude a training session safely and effectively:* Planned timings are met for each component of the exercise programme to ensure that the session is concluded to meet client needs; cool down activities are used at the end of the session to meet client needs, environmental conditions and safety requirements; clients provided with a summary of their performance to include strengths, weaknesses and areas for improvement; training environment is left in a suitable state for future use by cleaning and storing equipment, regulating ventilation, temperature and lighting and reporting any faults.

4. Carry out an evaluation of a group training session

- 4.1 *Obtain feedback from participants at the end of a training session:* Feedback obtained from clients by enabling them to reflect on their performance, ask questions, outline their thoughts about the session such as what went well and what could be improved and identify their needs for future sessions.
- 4.2 *Review own performance of instructing a group training session:* Feedback

from clients and own observations of training session used to review own performance of instructing the group training session; consideration given to how well the exercises met the clients' needs, the effectiveness of the relationship with the clients and own ability to motivate them and match instructing style to their needs; review used to improve personal practice, set goals and develop action plans; value of reflective practice explained in the context of goal setting and improving practice for more effective session delivery.

Assessment

The knowledge and understanding of the candidates will be assessed by centre-devised assessments. Assessment can take the form of multiple-choice examination, written examination, assignments, oral questioning or a portfolio of evidence.

Centres should ensure that the assessment method(s) adopted assess the candidate across all of the learning outcomes and assessment criteria of the unit.

The practical-based learning outcomes of this unit must be assessed in a realistic work environment, on a real or realistic client.

Assessed candidate work is subject to scrutiny by RSPH.

A candidate assessment summary form must be used to cross-reference assessment evidence to the assessment criteria. This is available in the Centre Area of the Qualifications section of the RSPH web-site (www.rsph.org.uk).

Unit 8: Know how to plan group circuit training

Total Unit Time: 40 hours

Guided Learning: 19 hours

Unit Level: 2

Unit reference number: M/617/8855

Summary of Learning Outcomes:

To achieve this unit a candidate must:

1. **Know how participant information can affect the composition of a circuit training group, with reference to:**
 - 1.1 How to obtain participant information
 - 1.2 Factors that may affect the participation of an individual in a circuit training group

2. **Know how to plan group circuit training sessions, with reference to:**
 - 2.1 How to ensure the safety and effectiveness of group training sessions
 - 2.2 How to ensure a group training session meets the needs of the participants

Candidates successfully achieving this unit will have knowledge and understanding of facts, procedures and ideas in planning group circuit training relevant to their job role to complete well-defined tasks and address straight-forward problems. They will be able to interpret relevant information and ideas and will be aware of a range of information that is relevant to group circuit training.

Indicative Content:

1. **How participant information can affect the composition of a circuit training group**
 - 1.1 *How to obtain participant information:* Explain the process of screening by gathering relevant and appropriate client information using suitable methods; questionnaires (lifestyle, PARQ, informed consent) that contain medical information, personal details, aims and objectives of the client, risks and benefits of the session, health status, barriers to activity, goals and activity preferences; interviews which can be formal or informal and recorded on paperwork such as questionnaires and kept securely using confidential methods; observation which can be postural, signs of exertion, verbal screening in conjunction with the PARQ and technique based; consider risk factors such as contraindications and clients requiring medical supervision.
 - 1.2 *Factors that may affect the participation of an individual in a circuit training group:* Recognise and describe factors that may affect or limit participation;

primary or secondary CHD risk factors, medical conditions, medication, medical history, previous and current exercise history, injury status and any specific needs (disability or adaptations). Understand how to adapt prescription based on client information; suitable prolonged warm up and cool down, modification of main exercises where required including intensity and recovery periods and alternatives for special circumstances such as disability or limited movement capacity. Identify temporary referral reasons such as minor illness or injury, excessive fatigue or PARQ responses unsuitable; recognise when health referrals are required (GP); contraindications or medical conditions identified, injury needing specialist treatment (therapist / physio) or ethical and legal requirements when conditions are out of the instructor scope of practice.

2. How to plan group circuit training sessions

- 2.1 *How to ensure the safety and effectiveness of group training sessions:* Identify objectives suitable for the client (improve fitness, health, weight management) appropriate to their skill and fitness levels, good practice and competence levels with agreed outcomes and client signature; select relevant and appropriate exercises suitable for the client; cardiovascular and muscular fitness aligning with goals, flexibility and motor skill development through the application of exercise variables such as reps, resistance, duration, speed and range of movement and provide alternatives to ensure client competence levels are met; minimise risks for the session; undertake risk assessments, equipment checks and relevant screening.
- 2.2 *How to ensure a group training session meets the needs of the participants:* Plan sessions towards achieving client SMART goals using ACSM guidelines and FITT principles to support a basic session consisting of Warm up, Mobility, dynamic stretches, main session circuit (including muscular strength and endurance exercises, cardiovascular exercises and motor skills), cool down and flexibility; identify a range of portable equipment suitable for group sessions; steps, barbells, dumbbells, resistance bands, medicine balls, chairs. Describe various types and formats of circuits with relevant timings and generic considerations; bodyweight, aerobic, resistance, intensity and duration of exercises, complexity, range and order of movements which can be delivered in satellite or linear formats and recorded in a formal layout which the clients can understand and re-use when required; describe the legal implications of using music within sessions; PPL licence being required alongside relevant insurance; explain the benefit of music within sessions; music can create a working level through the beat, increase motivation and enjoyment can be gained by participants.

Assessment

The knowledge and understanding of the candidates will be assessed by centre-devised assessments. Assessment can take the form of multiple-choice examination, written examination, assignments, oral questioning or a portfolio of evidence.

Centres should ensure that the assessment method(s) adopted assess the candidate across all of the learning outcomes and assessment criteria of the unit.

Assessed candidate work is subject to scrutiny by RSPH.

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Unit 9: Principles of exercise, fitness and health

Total Unit Time: 60 hours

Guided Learning: 41 hours

Unit Level: 2

Unit reference number: T/617/8856

Summary of Learning Outcomes:

To achieve this unit a candidate must:

1. Understand the effect of exercise on the individual, with reference to:

- 1.1 The effect of exercise on the cardiovascular and respiratory system
- 1.2 The effect of exercise on the skeletal system
- 1.3 The effect of exercise on musculature
- 1.4 The effect of exercise on mental health

2. Understand the components of fitness and how to apply these to a training programme, with reference to:

- 2.1 Health-related and skill-related fitness and the factors that affect them
- 2.2 How a training programme can develop fitness
- 2.3 Factors that have an effect on training programmes and fitness
- 2.4 How to monitor exercise intensity during training programmes

3. Know how to ensure special populations can exercise safely, with reference to:

- 3.1 How older people (50+) can exercise safely
- 3.2 How antenatal and postnatal women can exercise safely
- 3.3 How young people (14-16) can exercise safely
- 3.4 How disabled people can exercise safely

4. Know why healthy eating is important, with reference to:

- 4.1 The risk to health from poor nutrition
- 4.2 The nutritional advice to provide for a healthy diet
- 4.3 The role and sources of key nutrients

Candidates successfully achieving this unit will have knowledge and understanding of facts, procedures and ideas in the principles of exercise fitness and health relevant to their job role to complete well-defined tasks and address straight-forward problems. They will be able to interpret relevant information and ideas and will be aware of a range of information that is relevant to exercise fitness and health.

Indicative Content:

1. The effect of exercise on the individual

- 1.1 *The effect of exercise on the cardiovascular and respiratory system:* Long-term cardiovascular effects of aerobic training, to include an increase in the size of the heart, increase in cardiac output and stroke volume, decrease in heart rate and blood pressure, improved blood transport and distribution; short term cardiovascular effects to include reduced blood pooling, increased venous return and the benefits of this; importance of gradual progressive increments in blood pressure during exercise; effects on the respiratory system to include improved pulmonary ventilation and diffusion, increased lung capacity and reduced resting breathing rate.
- 1.2 *The effect of exercise on the skeletal system:* Importance of bone density; effect that weight-bearing exercises can have on bone density; examples of such exercises and activities and their associated risks; benefits of joint stability, range of movement at a joint and mobilisation; exercises that improve posture, core stability and movement.
- 1.3 *The effect of exercise on musculature:* Short-term effects to include increases in contractility and elasticity, effects on metabolism and body temperature; long term effects such as increase in size and number of mitochondria, storage of muscle glycogen and use of fat for energy, increase in muscle mass by development of muscle fibres and improvement in motor unit recruitment; muscle damage (delayed onset of muscle soreness / DOMS) due to particular exercises such as eccentric training, plyometrics and higher than normal exercise intensity.
- 1.4 *The effect of exercise on mental health:* Benefits of exercise such as reduction in stress, depression and anxiety; improved psychological wellbeing and self-esteem; alleviation of symptoms such as low self-esteem and social withdrawal and as a protective factor for risk factors related to dementia.

2. The components of fitness and how to apply these to a training programme

- 2.1 *Health-related and skill-related fitness and the factors that affect them:* Health-related fitness components to include cardiovascular endurance, muscular endurance, muscular strength, flexibility and body composition; skill-related fitness components to include speed, power, agility, balance, co-ordination, reaction time; importance of these components for different activities; factors affecting fitness to include genetics, gender, age, body type, training status, lifestyle (stress, nutrition, alcohol, smoking, drugs, rest).
- 2.2 *Training programmes and developing fitness:* FITT (frequency, Intensity, Time, Type) principles with reference to cardiovascular health and fitness, muscular strength and endurance, flexibility and physical activity; role of FITT principles in progressive training and the importance of a progressive training programme in the development of fitness; factors which may lead to regression of a training

programme such as injury risk, overtraining, lack of recovery, excessive repetition and boredom; differences in exercise programming for health or for fitness; importance of ACSM guidelines.

- 2.3 *Factors that have an effect on training programmes and fitness:* Physiological implications of specificity, progressive overload, reversibility, adaptability, individuality and recovery time; how adaptation, modification and progression relate to FITT; effect of speed on posture, alignment and intensity of exercise and the relationship between speed and the risk of injury and reduced technique. The effect of exercise on the following: different types of body lever and their range and force of movement; gravity with reference to specific exercises, and resistance.
- 2.4 *How to monitor exercise intensity during training programmes:* Benefits and limitations of different methods for monitoring exercise intensity with reference to validity, suitability, practicality and client needs; methods to include talk test, visual observation, rate of perceived exertion (RPE) and heart rate monitoring; use of different heart rate zones.

3. How special populations can exercise safely

- 3.1 *How older people (50+) can exercise safely:* Contraindications to exercise for 50+ adults such as loss of physiological and psychological function with cognitive and sensory signs and symptoms evident; relevant safety guidelines for prolonged warm up and cool down, pre-exercise screening, health-related intensity levels, technique, duration of exercise and transitions between movements, regressions and spinal loading.
- 3.2 *How antenatal and postnatal women can exercise safely:* Contraindications and guidelines for ante and post-natal clients to include previous history of pregnancies and births, joint misalignments, muscle imbalances, embolism, thrombosis, haemorrhage, pelvic floor dysfunction, joint pain, linea alba check; safety guidelines such as need to ensure aerobic exercise is increased gradually, monitoring of hydration, body temperature and calorie intake; types of exercise that should be avoided.
- 3.3 *How young people (14-16) can exercise safely:* Contraindications and guidelines for working with young people; importance of stages of development and bone growth and related injury risks; safety guidelines such as those relating to footwear and clothing, warm-up and cool down periods, exercise intensity, hydration and calorie intake, types of exercise that should be avoided; importance of repetition and technique.
- 3.4 *How disabled people can exercise safely:* Contraindications to exercise to include reduced physical condition and function, lower levels of motor skills, impaired cognitive, neurological or sensory functioning and muscle imbalances; safety guidelines to include reasonable access, suitably qualified staff and specialist equipment if required.

4. Know why healthy eating is important

- 4.1 *The risk to health from poor nutrition:* Risk of disease due to poor nutrition to include obesity, diabetes, heart disease, osteoporosis, stroke, cancer, hypertension, arthritis, mental health problems (anxiety, low self-image, depression) and malnutrition.
- 4.2 *The nutritional advice for a healthy diet:* Nutritional advice such as the national food guide, Eat-Well guide, recommended daily amounts for sodium, saturated fat and sugar; dietary advice such as 5-a-day, eat less saturated fat, salt and sugar, increase fibre intake; reputable sources of dietary advice; importance of hydration for homeostasis, physical and mental performance; the energy balance equation, positive / negative energy balance, basal metabolic rate(BMR) and the effect of activity levels; calculating energy intake and expenditure; professional boundaries and relevant codes of conduct relating to providing dietary advice.
- 4.3 *The role and sources of key nutrients:* Role of protein, fats, carbohydrates, fibre and key vitamins and minerals (Vitamins B₁₂, C, D and folate, calcium, iron, sodium); sources of these nutrients in the diet; effect of deficiencies of these nutrients.

Assessment

The knowledge and understanding of the candidates will be assessed by centre-devised assessments. Assessment can take the form of multiple-choice examination, written examination, assignments, oral questioning or a portfolio of evidence.

Centres should ensure that the assessment method(s) adopted assess the candidate across all of the learning outcomes and assessment criteria of the unit.

Assessed candidate work is subject to scrutiny by RSPH.

A candidate assessment summary form must be used to cross-reference assessment evidence to the assessment criteria. This is available in the Centre Area of the Qualifications section of the RSPH web-site (www.rsph.org.uk).

Centre Guidance

Registration of Candidates

Candidates must be registered with RSPH and have a candidate number before any work can be submitted for external verification.

Candidate registration forms can be downloaded from the Centre Area of the Qualifications section of the RSPH website (www.rsph.org.uk).

Suggested reading and useful web-sites

A list of suggested reading and useful web-sites for learners and tutors is available in the Centre Area of the Qualifications section of the RSPH web-site (www.rsph.org.uk).

Exemptions

Candidates may be able to claim exemption from the following units based on recognition of prior learning and achievement. Only the achievement of **regulated** qualifications can be used for claiming exemption.

Unit 1: Principles of health improvement
Candidates can claim exemption for this unit if they have achieved one of the following qualifications: RSPH Level 2 Award in understanding health improvement (603/0635/5) RSPH Level 2 Award in understanding health improvement (600/0529/0) RSPH Level 2 Award in applied health improvement (600/2745/9) RSPH Level 2 Award in improving the public's health (603/0656/7)
Unit 2: Mental health and wellbeing
Candidates can claim exemption for this unit if they have achieved one of the following qualifications: RSPH Level 2 Award in understanding mental health and wellbeing (600/7762/1) RSPH Level 2 Award in improving the public's health (603/0656/7)
Unit 3: Developing working relationships with clients
Candidates can claim exemption for this unit if they have achieved the following qualification: RSPH Level 2 Award in improving the public's health (603/0656/7).
Unit 4: Exercise anatomy and physiology
Candidates can claim exemption for this unit if they have achieved certification demonstrating previous completion of the unit via gym or Pilates qualifications.
Unit 5: Health, safety and welfare in a fitness environment
Candidates can claim exemption for this unit if they have achieved certification demonstrating previous completion of the unit via gym or Pilates qualifications.
Unit 6: Know how to support clients who take part in exercise and physical

activity
Candidates can claim exemption for this unit if they have achieved certification demonstrating previous completion of the unit via gym or Pilates qualifications.
Unit 7: Instructing group circuit training
Candidates can claim exemption for this unit if they have achieved certification demonstrating previous completion of the unit via gym or Pilates qualifications.
Unit 8: Know how to plan group circuit training
Candidates can claim exemption for this unit if they have achieved certification demonstrating previous completion of the unit via gym or Pilates qualifications.
Unit 9: Principles of exercise, fitness and health
Candidates can claim exemption for this unit if they have achieved certification demonstrating previous completion of the unit via gym or Pilates qualifications.

In order to claim exemption, centres must submit a copy of the relevant certificate when they submit the completed and assessed candidate work for the other units. Qualifications must have been achieved within **THREE** years of the candidate registering for the qualification, or **FIVE** years if the candidate can provide evidence of relevant cpd activities.

Progression

Successful candidates can progress into relevant employment or onto a range of Level 3 qualifications in health improvement and fitness training.

Submission of completed candidate assessment

Centres must follow the RSPH procedures for submitting internally assessed work for scrutiny. These can be found under **Resources** in the Centre Area of the Qualifications section of the RSPH website (www.rsph.org.uk). The workbooks can be obtained from **Resources**.

Centres must ensure that the evidence submitted covers all of the learning outcomes and assessment criteria for each of the units in the qualification and that the evidence is suitable and sufficient to enable confirmation of the assessment decisions.

Assessment procedure documents and candidate assessment summary forms for use with the centre-assessed units of this qualification are available in the Centre Area of the Qualifications section of the RSPH web-site (www.rsph.org.uk).

Evidence of internal quality assurance must be recorded, retained and made available to RSPH for scrutiny.

National Occupational Standards:

The qualification has been mapped to the following National Occupational Standards, frameworks and guidelines:

CHD ED3 Encourage behaviour and activities that reduce the risk of Coronary Heart Disease (CHD)

HT1 Make relationships with communities

HT2 Communicate with individuals about promoting their health and wellbeing

HT3 Enable individuals to change their behaviour to improve their own health and wellbeing

SFHMH39 Enable individuals and families to identify factors affecting, and options for optimising, their mental health and wellbeing

SFHMH62 Determine the concerns and priorities of individuals and families in relation to their mental health and mental health needs

SKAEF2 Assist participants to develop and maintain the motivation to adhere to exercise and physical activity

SKAEF5 Plan and prepare group exercise

SKAEF6 Instruct group exercise

NHS Key Skills Framework

Public Health Skills and Knowledge Framework

How to apply to offer this qualification

To become a centre approved to offer this qualification, please complete the 'Centre Application Form' which can be found on our website in the Qualifications and Training section. If you are already an approved centre, please complete the 'Add an Additional Qualification Form' which can be downloaded from the Centre area on the website www.rsph.org.uk. Please ensure that you include details of your quality assurance procedures, centres must have rigorous internal quality assurance procedures with appropriately experienced staff in order to ensure consistency and fairness of assessment. You will need to attach a CV to this application. As some of the units in this qualification are assessed by centre-devised assessments these will need to be submitted with the application for approval. Please contact the Qualifications Department at centreapproval@rsph.org.uk if you need any assistance.

Special Assessment Needs

Centres that have candidates with special assessment needs should consult RSPH's *Reasonable Adjustments and Special Consideration policy*; this is available from RSPH and the website (www.rsph.org.uk).

Recommended Qualifications and Experience of Tutors and Assessors

RSPH would expect that tutors or facilitators have teaching experience and a Level 3 or above qualification in a relevant subject area. However, it will consider experienced practitioners who supervise staff in the workplace and who have appropriate background knowledge to deliver this qualification. Centres may require a team approach. Tutors who deliver the practical circuit training units must hold relevant certificates that enable them to instruct group circuit training.

Assessors should be experienced practitioners and supervisors in a subject area relevant to the units assessed by learner workbooks and portfolio.

Other Information:

All RSPH specifications are subject to review. Any changes to the assessment or learning outcomes will be notified to Centres in advance of their introduction. To check the currency of this version of the specification, please contact the Qualifications Department or consult the RSPH website.

Centres must be registered with RSPH.

Any enquiries about this qualification should be made to:

The Qualifications Department,
Royal Society for Public Health
John Snow House
59 Mansell Street
London E1 8AN

Tel: 020 7265 7300
Fax: 020 7265 7301
Email: info@rsph.org.uk

www.rsph.org.uk