

## Detailed Qualification Requirement

### Level: Exercise Specialist

#### 1. Qualification requirement

A New Zealand issued undergraduate degree or equivalent with at least the specific exercise science content as per the schedule below\*. Note that the degree does not necessarily need to be specifically in exercise science; it is acknowledged that many general sport and exercise degrees contain substantial exercise science content even if not obviously apparent in the title of the degree.

#### 2. Scope

Exercise Specialists are endorsed to:

- Prescribe personalised physical or health rehabilitation services
- Undertake fundamental movement competency screening
- Perform advanced fitness testing
- Provide comprehensive personalised exercise prescription
- Provide sports specific exercise prescription
- Give general nutrition or dietary advice to clients on fat loss, muscle gain and general health

Exercise Specialists are **not** endorsed to:

- Prescribe rehabilitation programmes for high risk populations unless under the guidance of a rehabilitation specialist such as a clinical exercise physiologist or medical practitioner.
- Provide exercise assessments on high risk populations, such as cardiovascular stress testing
- Provide individualised nutritional advice for special populations unless under the guidance of a registered dietician
- Diagnose disease
- Diagnose musculoskeletal conditions

#### 3. Degree content requirements

\*Specific exercise science content must include each of the following:

- Detailed musculoskeletal anatomy
- Human physiology
- Fundamental biomechanics
- Applied biomechanics
- Exercise physiology
- Fundamental exercise prescription for resistance training, cardiovascular conditioning, flexibility
- Applied exercise prescription
- Fitness assessment
- Nutrition
- Symptomatic populations patho-physiology, recommendations and contraindications
- Sports conditioning
- Exercise psychology
- Physical activity and health promotion
- Exercise science research methods and analysis

It is recognised that the above content may exist discreetly across a variety of papers / modules / courses within a degree rather than as specifically nominated topics. In such cases, evidence should be provided to detail approximate total point value of each topic area.

#### 4. An Exercise Specialist will have the following knowledge and competencies:

##### a. Evidence based, inter-professional practice

- Underpins their practice by accessing, consuming and critically evaluating a broad range of health and fitness research literature
- Understands the scope of practice for a range of allied health professionals and how inter-professional networks mutually complement professional practice
- Applies knowledge and understanding to recognise, assess and refer on appropriate clients to a other health professionals as required
- Understands and can articulate their own scope of practice

##### b. Exercise for symptomatic and special populations

The criteria below refer specifically to the following:

- Diabetes, types I and II
- Cardiovascular disease
- Hypertension
- Osteoarthritis
- Rheumatoid arthritis
- Respiratory conditions

- Obesity
- Osteoporosis
- Pre adolescents and adolescents
- Ante/post natal clients
- Older adults

- Can identify risk factors for conditions that require consultation with a medical practitioner and rehabilitation specialist before exercise prescription
  - Applies and interprets screening tools to determine the suitability of exercise and physical activity interventions for symptomatic and special populations (risk stratification)
  - Understands how the structure and function of basic body systems are affected by disorders and disease (patho-physiology)
  - Has detailed knowledge of disease-specific signs and symptoms increasing the risk of complications during exercise
  - Selects appropriate fitness tests or modifies standard protocols to accommodate monitoring of symptomatic and special populations
  - Understands the effects of commonly prescribed medications on exercise response and adaptation
  - Prescribes safe and appropriate physical activity and exercise (endurance and resistance) programmes for symptomatic and special populations based on condition specific recommendations and contraindications
- Understands the role for exercise and physical activity participation in the prevention of diseases

##### c. Anatomy, physiology, biomechanics

- Has detailed knowledge of human anatomy, physiology and biomechanics and how such knowledge underpins effective programming practice for:
  - Resistance training
  - Cardiovascular training
  - Flexibility
- Understands the physiological responses and adaptations of the neuromuscular, cardiovascular, respiratory and endocrine systems to exercise and training and how such knowledge underpins effective programming practice for:
  - Resistance training
  - Cardiovascular training
  - Flexibility

##### d. Motivation, adherence and exercise behaviour

- Understands the theories and principles of motivation and adherence to exercise at the individual level
- Applies and evaluates psychological principles to understand client behaviour in a physical activity/exercise setting

##### e. Nutrition and body composition

- Understands basic principles and concepts of nutrition and how they relate to exercise and general health
- Applies basic dietary assessment methodologies, and can explain the nutritional requirements for muscle hypertrophy and fat loss
- Understands the role of nutrition in health and wellbeing, and in the reduction of the incidence of lifestyle diseases

##### f. Physical Activity and Health Promotion

- Can describe national health trends and key strategies implemented to remedy identified issues

##### g. Exercise prescription and assessment

- Can perform fundamental movement competency (dynamic posture) analysis and customize exercise prescription accordingly
  - Has advanced applied knowledge of exercise prescription including exercise modality options and programme design
  - Has advanced applied knowledge of resistance training techniques and the ability to safely and effectively coach them
  - Can design and implement a sports specific periodised programme
  - Understands the biomechanical demands, muscle actions, motor skills and role of energy systems in different sports and their relevance to designing effective sports conditioning programmes
- Can safely and effectively conduct a range of fitness assessments of all components of fitness, appropriate to the client, and use the results to inform programming practice