



Accredited Exercise Physiologist Professional Standards

September 2015

ESSA
EXERCISE & SPORTS SCIENCE AUSTRALIA

www.essa.org.au

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Preface

The ESSA Accredited Exercise Physiologist (AEP) Professional Standards are based on the *minimum* professional requirements for graduates of clinical exercise physiology to begin practice in the profession. They are not intended to limit the scope of AEP practice, but represent a basic structure for AEP professional practice. These Standards replace and expand on the Professional Standards that have been in place since 2008. They enable the profession to continue to grow its standing in an ever evolving health service environment. This is the first set of graduate attributes and elements that have been written for AEPs and they have been designed to align with the scope of practice for AEPs.

The AEP Professional Standards meet the Australian Qualification Framework (AQF) requirements at Level 7 that lead to four year Bachelor Degree qualifications. AEPs can also graduate from postgraduate programs at higher AQF levels. It is a condition of ongoing accreditation that the AEP will engage in continuing professional development. Practice, integrated with professional development, will ensure that AEPs continue to develop and enhance their individual scopes of practice, knowledge, skills and competencies. At all times the practising AEP is expected to provide services within the boundaries of the profession, their own scope of practice and any compensable schemes under which they practise (e.g. Medicare, Department of Veterans' Affairs (DVA), Workers Compensation and Compulsory Third Party Insurance Schemes and Private Health Insurers).

These Standards are competency-based and build on the underpinning ESSA Exercise Science Standards. The AEP Standards are organised into thirteen study areas, with Generic Standards 1 to 5 broadly describing practice of the profession. Standards 6 to 13 (pathology specific domains) describe sets of knowledge and competencies that are needed to provide safe and effective exercise services for various broad-based pathology domains. This includes the capacity to practice across multiple pathology domains in a single client (i.e. co-morbidities and complex conditions). This structure recognises that learning and competence is built cumulatively through application of the broad practice Standards (Standards 1 to 5) and then applied to clientele typically seen by AEPs (Standards 6- 13 pathology specific domains). This provides AEPs with the breadth of knowledge and skills to prescribe exercise for clients presenting with complex and / or chronic conditions, and managing multi-pathology relationships and priorities. The Standards also include greater emphasis on mental health conditions and worker health and rehabilitation situations that are expanding areas of practice for AEPs.

We believe that these Standards will strengthen and expand the vocational and professional opportunities for AEPs in general, and new graduates in particular, as well as providing universities with the flexibility to creatively integrate them into their program offerings. These Standards will be incorporated into the ESSA Course Accreditation Program.

Members of the ESSA Exercise Physiology Accreditation Review Committee

The 2015 revision of the ESSA Exercise Physiology Professional Standards was led by the ESSA Exercise and Physiology Accreditation Review Committee

Professor Steve Selig (Chair)

Ms Janette Frazer-Allen (Project Manager)

Ms Carly Ryan (Project Manager)

Ms Lyndell Crawford-Round (Project Officer)

Ms Maryam Salighehm (Project Officer)

Ms Karen Anderson

Mr Bob Barnard

Dr Fiona Barnett

Ms Megan Charity

Mr Garry Francis-Pester

Assoc Prof Andrew Maiorana

Dr Stuart Semple

Assoc Prof Neil Smart

Mr Adrian Munro (consultant)

Graduate Attributes of the Accredited Exercise Physiologist (AEP)

The Accredited Exercise Physiologist (AEP) is an allied health professional equipped with the knowledge, skills and competencies to design, deliver and evaluate safe and effective exercise interventions for people with acute, sub-acute or chronic medical conditions, injuries or disabilities.

Upon successful completion of an accredited course in clinical exercise physiology, it is expected that in addition to the attributes of an ESSA Exercise Scientist a graduate will have the following attributes aligned to the five generic Professional Standards of the AEP.

1. Knowledge and capacity to practise according to the ESSA Scope of Practice for AEPs and the ESSA Code of Professional Conduct and Ethical Practice.
2. Awareness and understanding of national, state and other compensable schemes and legislation related to AEP practice.
3. Well-developed communication skills for engaging with clients, parents, carers and significant others, accounting for sociocultural and individual factors.
4. Well-developed communication skills for engaging with other health professionals and engage in inter-professional collaboration, including the ability to prepare written reports as required by compensable schemes.
5. Commitment to professional self-development in the field of clinical exercise through engaging in educational and ongoing learning, self-evaluation of practice, building inter-professional working relationships and supporting new graduates.
6. Broad and coherent knowledge and understanding of the pathophysiological bases of AEP target conditions, and the associated medical, surgical and other allied health treatment modalities and interventions for these conditions.
7. Broad and coherent knowledge and understanding of interactions between AEP target conditions, their treatments and the effects of exercise interventions in managing chronic and complex clinical presentations.
8. Well-developed cognitive and technical skills to design, implement and evaluate safe and effective exercise interventions, based on referral information, presenting pathologies and co-morbidities, clinical reasoning, pre-intervention assessments and the analysis, interpretation and application of scientific evidence.
9. Well-developed cognitive and technical skills to select, design or modify and then analyse, interpret and apply assessment protocols and methodologies appropriate to the client and situation for acute, sub-acute and chronic disease and injury management, workplace health and rehabilitation and other clinical exercise services.
10. Broad and coherent knowledge and well developed cognitive and technical skills to monitor, recognise, analyse, interpret, report and take appropriate action regarding adverse signs and symptoms that may arise during exercise and/or recovery.
11. Well-developed cognitive and creative skills to teach, coach and motivate clients to facilitate self-management of exercise and healthy lifestyle, using models of behaviour change, scientific evidence and clinical reasoning, and accounting for sociocultural and individual factors.

It is expected that graduates of an accredited course in clinical exercise physiology, can demonstrate these attributes in the context of Professional Standards and clinical practicum/professional practice.

Generic Standards of the Accredited Exercise Physiologist (AEP)

Standard 1: Professional Practice

Standard 2: Foundational Knowledge

Standard 3: Referrals, screening and assessments of exercise capacity

Standard 4: Design of exercise interventions

Standard 5: Implementation of exercise and health & wellness interventions

Pathology Domains specific standards

Standard 6: Cancer domain

Standard 7: Cardiovascular domain

Standard 8: Kidney domain

Standard 9: Mental Health domain

Standard 10: Metabolic domain

Standard 11: Musculoskeletal domain

Standard 12: Neurological domain

Standard 13: Respiratory / Pulmonary domain

**(Please note the worker health and rehabilitation requirements are integrated into the AEP professional standards as elements within the generic standards and mental health and musculoskeletal pathology domains.)*

Standard 1: Professional Practice

1.1 Guiding principle

Graduates of an accredited course in clinical exercise physiology are able to consider clinical, scientific, ethical and legislative parameters, and the broader healthcare system framework, for their practice.

1.2 Assessment expectations

- 1.2.1 Professional practice is assessed using a combination of blended learning assessment and feedback techniques that incorporate theoretical and practical elements, with an emphasis on clinical practicum tasks and capstone assessment tasks.
- 1.2.2 Assessment focuses on demonstrating graduate practitioner readiness to commence safe and effective practice in the profession of the Accredited Exercise Physiologist (AEP) and within the boundaries of the ESSA Scope of Practice for AEPs and the ESSA Code of Professional Conduct and Ethical Practice.

1.3 Elements of graduate outcomes

Graduates of an accredited course in clinical exercise physiology can:

- 1.3.1 Illustrate the scope of practice of Accredited Exercise Physiologist (AEP) and the scope of roles available for AEP practice.
- 1.3.2 Employ core principles of case management and appropriate clinical reporting in the delivery of clinical, health and wellness, work conditioning and rehabilitation services within the boundaries of the ESSA AEP scope of practice and the healthcare system framework.
- 1.3.3 Practise professional conduct that incorporates the principles, legislation, regulations, rights and responsibilities that underpin: the ESSA Code of Professional Conduct and Ethical Practice; therapeutic and collegial relationships; and professional practice in a client centred, multi-disciplinary care environment.
- 1.3.4 Employ evidence-based practice and professional clinical practice principles in the practice of the profession of an AEP.

Standard 2: Foundational Knowledge

2.1 Guiding principle

Graduates of an accredited course in clinical exercise physiology apply knowledge of pathophysiological bases for a broad range of medical conditions, and have an understanding of common treatments, interventions and management.

2.2 Assessment expectations

Foundational knowledge is assessed across AEP pathology domains (Standards 6-13) using a combination of blended learning assessment and feedback techniques that incorporate theoretical and problem-based elements and case study material.

2.3 Elements of graduate outcomes

Graduates of an accredited course in clinical exercise physiology can:

- 2.3.1 Differentiate the pathological and pathophysiological bases for all target conditions in the musculoskeletal and cardiovascular domains and a broad range of the AEP target conditions across the other AEP pathology domains.
- 2.3.2 Distinguish common diagnostic procedures, medical, surgical and other interventions, and commonly prescribed medications for a broad range of target conditions across all AEP pathology domains.
- 2.3.3 Evaluate evidence base for mode, intensity, duration, frequency, volume and progression of exercise interventions for the target conditions in the musculoskeletal and cardiovascular domains and for a broad range of target conditions across all of the other AEP pathology domains.
- 2.3.4 Illustrate fundamental behaviour change determinants, principles, theories and their application to improving client exercise compliance and lifestyle choices including exercise and nutrition.

Standard 3: Referrals, screening and assessments of exercise and functional capacity

3.1 Guiding principle

Graduates of an accredited course in clinical exercise physiology are able to interpret and use referral information, conduct screening and assessments of clients for safe participation in exercise, and perform functional capacity evaluations.

3.2 Assessment expectations

Referral, risk stratification, screening, assessment and monitoring of exercise and functional capacity are assessed using a combination of blended learning assessment and feedback techniques that incorporate theoretical and practical elements; problem-based and simulated learning modes; case study material and clinical practicum.

3.3 Elements of graduate outcomes

Graduates of an accredited course in clinical exercise physiology can:

- 3.3.1 Differentiate contraindications for exercise for all target conditions in the musculoskeletal and cardiovascular domains and a broad range of target conditions across the other AEP pathology domains.
- 3.3.2 Formulate comprehensive client histories that consider clinical risk and clinical safety factors and reasons for exercise.
- 3.3.3 Judge clients' stratified exercise risk including when to refer onwards.
- 3.3.4 Formulate measurement actions, monitoring actions, and strategies to manage client clinical status and changes in clinical status before, during and after assessment and exercise, for all target conditions in the musculoskeletal and cardiovascular domains and a broad range of AEP target conditions across the other AEP pathology domains.
- 3.3.5 Choose and apply (before, during and after assessment and exercise) guidelines and measurement tools/techniques to measure and assess clients' clinical and functional status; and safe and effective exercise ranges and limits, for all target conditions in the musculoskeletal and cardiovascular domains and a broad range of target conditions across the other AEP pathology domains.
- 3.3.6 Recognise, interpret, revise and demonstrate in client-centred, multi-disciplinary care models, responses to changing risk factors, safety factors and clinical situations before, during and after assessments and exercise (including first-aid response), for all target conditions in the musculoskeletal and cardiovascular domains and a broad range of target conditions across the other AEP pathology domains.

- 3.3.7 Formulate and demonstrate measurement, evaluation and reporting of exercise capacity including verbal and written communication with clients, referrer and other relevant stakeholders.
- 3.3.8 Explain the principles of body mechanics.
- 3.3.9 Discuss core principles of functional capacity as it relates to regulations, scientific evidence, safe practice, client need and a multi-disciplinary care environment.
- 3.3.10 Formulate and demonstrate measurement, evaluation and reporting of functional capacity that includes evaluation plans and considers a variety of settings including clinical/private practice, tertiary care, pre-employment, workplace, recreation and sports settings.

Standard 4: Design of exercise interventions

4.1 Guiding principle

Graduates of an accredited course in clinical exercise physiology can design safe and effective exercise interventions, and health and wellness interventions to effect behaviour change and increase exercise and functional capacity across diverse contexts and settings.

4.2 Assessment expectations

Design of exercise interventions is assessed using a combination of blended learning assessment and feedback techniques that incorporate theoretical and practical elements, problem-based and simulated learning modes, case study material and clinical practicum.

4.3 Elements of graduate outcomes

Graduates of an accredited course in clinical exercise physiology can:

- 4.3.1 Formulate strategies to manage negative influencing factors on client behaviours.
- 4.3.2 Design safe and effective exercise plans that consider available scientific evidence, client treatment goals, medical history, clinical status, screening and assessments information and other influencing factors.
- 4.3.3 Design and revise functional capacity assessments and interventions that consider the clients' needs, capabilities, duties and/or workplace setting/requirements.

Standard 5: Implementation of exercise and health & wellness interventions

5.1 Guiding principle

Graduates of an accredited course in clinical exercise physiology can implement safe and effective exercise interventions that considers clients' clinical status and manage behavioural factors that influence exercise participation.

5.2 Assessment expectations

- 5.2.1 Implementation of exercise interventions is assessed mostly using practical elements including clinical practicum and simulated learning; plus problem-based learning and case study material.
- 5.2.2 Assessments include a focus on clinical practicum and simulated learning in musculoskeletal and cardiovascular cohorts and a range of clientele broadly representative of the other AEP pathology domains and target conditions.

5.3 Elements of graduate outcomes

Graduates of an accredited course in clinical exercise physiology can:

- 5.3.1 Deliver safe and effective exercise plans that consider available scientific evidence, client treatment goals, medical history, clinical status and other influencing factors.
- 5.3.2 Deliver safe and effective exercise interventions to affect positive changes in exercise and functional capacity; health and wellness behaviours and that consider influencing factors including risk, safety, individual and sociocultural/economic factors.
- 5.3.3 Relay medicines information including purpose and importance of compliance and exercise related side effects; and nutrition information aligned to nationally endorsed guidelines to clients considering clinical status and other influencing factors for client comprehension.
- 5.3.4 Practise behaviour change techniques and strategies and responses to changes in clinical situation including employing first-aid techniques.
- 5.3.5 Formulate responses and management strategies for the provision of emergency or first-aid responses, and the appropriate reporting to referrers/primary health providers and/or other health providers.

Standard 6: Cancer domain

6.1 Target conditions

Breast cancer, Prostate cancer, Colorectal cancer

6.2 Guiding principle

Graduates of an accredited course in clinical exercise physiology apply foundational knowledge of cancer conditions and comorbidities, risk / capacity / treatment / influencing factors in a multi-disciplinary cancer care environment to design and translate into practice, safe and evidence-based exercise interventions for clients with cancer.

6.3 Assessment expectations

The cancer domain is assessed using a combination of blended learning assessment and feedback techniques that incorporate theoretical and practical elements, problem-based and simulated learning modes, case study analyses and clinical practicum.

6.4 Elements of graduate outcomes

Graduates of an accredited course in clinical exercise physiology can:

- 6.4.1 Explain cancer pathological, pathophysiological bases and roles of health professionals in delivering multi-disciplinary care to cancer clients.
- 6.4.2 Consider medications, surgical, medical and allied health interventions/treatments, clinical and safety risks and their implications on clinical status, exercise and functional capacity in the design and delivery of safe and effective exercise for individual clients.
- 6.4.3 Identify and respond to changes in clinical status, co-morbidities, exercise and functional capacity, between and during exercise sessions.
- 6.4.4 Revise communication and leadership to respond to changes in client and other health professional needs and manage changes in clinical situation(s).

Standard 7: Cardiovascular domain

7.1 Target conditions

Ischaemic heart disease (IHD) / acute myocardial infarction (AMI), chronic heart failure (CHF), arrhythmias and pacemakers, hypertension, peripheral artery disease (PAOD), valve disease

7.2 Guiding principle

Graduates of an accredited course in clinical exercise physiology apply foundational knowledge of cardiovascular conditions and comorbidities, safety / risk / monitoring parameters in a multi-disciplinary cardiovascular care environment to design and translate into practice, safe, evidence-based exercise interventions for clients with / at risk of developing cardiovascular conditions.

7.3 Assessment expectations

- 7.3.1 The cardiovascular domain is assessed using a combination of blended learning assessment and feedback techniques that incorporate theoretical and practical elements, problem-based and simulated learning modes, case study analyses and clinical practicum.
- 7.3.2 Assessment includes a focus on demonstration of pre-screening and pre-program exercise testing; blood pressure measurement/monitoring techniques before, during and after exercise; arrhythmia detection techniques (electrocardiogram (ECG)) and non-ECG); detecting signs/symptoms of myocardial ischaemia and strategies for the management of arrhythmias and myocardial ischaemic signs/symptoms in cardiovascular clientele.

7.4 Elements of graduate outcomes

Graduates of an accredited course in clinical exercise physiology can:

- 7.4.1 Examine cardiovascular pathological and pathophysiological bases; arrhythmias and pacemakers; generic cardiac diagnostic and prognostic procedures and indicators; common cardiac medicines and treatments; and cardiovascular indications and contraindications for exercise.
- 7.4.2 Compare the roles of health professionals in delivering multi-disciplinary care to cardiovascular clientele.
- 7.4.3 Recognise adverse signs/symptoms including cardiac arrhythmias, myocardial ischaemia, inappropriate high or low blood pressures, and other adverse cardiac signs and symptoms, and formulate appropriate clinical responses that include session modification or termination, first-aid and onward referral.
- 7.4.4 Practise blood pressure measurement at rest and during exercise on cardiovascular cohort clients.

- 7.4.5 Practise 12-lead ECG and non-ECG methods to identify arrhythmias.
- 7.4.6 Identify and respond to changes in clinical status, co-morbidities, exercise and functional capacity inter and intra sessions.
- 7.4.7 Consider medications, surgical and medical treatments/complications, allied health interventions/treatments, and clinical and safety risks and their implications on clinical status, exercise and functional capacity in the design and delivery of safe and effective exercise for individual cardiovascular clients.

Standard 8: Kidney domain

8.1 Target conditions

Chronic kidney disease (CKD) stages 1-5, common aetiologies - diabetic nephropathy, hypertensive nephropathy, polycystic kidney disease, long-term medication use, infectious kidney disease, acute kidney failure (reversible), end stage kidney disease

8.2 Guiding principle

Graduates of an accredited course in clinical exercise physiology apply foundational knowledge of chronic kidney diseases and comorbidities, risk / limiting / treatment factors in a multi-disciplinary kidney care environment to design and translate into practice, safe, evidence-based exercise interventions for clients with kidney conditions.

8.3 Assessment expectations

- 8.3.1 The kidney domain is assessed using a combination of blended learning assessment and feedback techniques that incorporate theoretical and practical elements, problem-based learning, case study analyses, simulated learning modes and/or clinical practicum.
- 8.3.2 Assessment includes a focus on pre-screening and pre-program exercise testing, including client mobility, monitoring, interpreting and reporting on adverse signs and symptoms that may arise during acute exercise.

8.4 Elements of graduate outcomes

Graduates of an accredited course in clinical exercise physiology can:

- 8.4.1 Explain chronic kidney disease pathological and pathophysiological bases; effective clinical management including early identification, co-morbid disease management, inhibiting disease progression, managing clinical safety risk factors and exercise/equipment modifications; and relative and absolute contraindications for exercise including dialysis, blood pressure and impaired physiological response(s).
- 8.4.2 Illustrate roles of health professionals including inter-professional cooperation in delivering multi-disciplinary care to chronic kidney disease clients.
- 8.4.3 Consider medications; surgical, medical and allied health interventions/treatments including transplant and dialysis; clinical and safety risks and their implications on clinical status; and exercise and functional capacity in particular mobility in the design and delivery of safe and effective exercise for individual chronic kidney disease clients.

- 8.4.4 Identify and respond to changes in clinical status, co-morbidities, exercise and functional capacity, during and between exercise sessions.
- 8.4.5 Revise communication and leadership to respond to changes in client and other stakeholder needs and manage changes in clinical situation(s).
- 8.4.6 Practise measuring blood pressure in chronic kidney disease cohort clients at rest, during dialysis and during exercise (with and without associated dialysis).

Standard 9: Mental Health domain

9.1 Target conditions

Anxiety Disorders, Affective Disorders, Psychotic Disorders and Trauma and Stressors Related Disorders

9.2 Guiding principle

Graduates of an accredited course in clinical exercise physiology apply knowledge of mental health conditions / co-morbidities / treatments, environmental / behavioural influencing factors, ethics / communication / capacity / monitoring considerations in a multidisciplinary mental health care environment to design and translate into practice, safe, ethical and evidence based exercise interventions for clients with / at risk of mental health conditions.

9.3 Assessment expectations

- 9.3.1 The mental health domain is assessed using a combination of blended learning assessment and feedback techniques that incorporate theoretical and practical elements, problem-based modes, case study analyses, simulated learning modes and/or clinical practicum.
- 9.3.2 Assessment includes a focus on pre-screening and pre-program exercise testing; modification of communication style to accommodate client needs/clinical status; identifying, interpreting and responding to changes in client clinical status intra and inter session including acute and chronic responses to exercise and behaviours non-conducive to exercise participation and/or progression and emergency response triggers.

9.4 Elements of graduate outcomes

Graduates of an accredited course in clinical exercise physiology can:

- 9.4.1 Examine the core principles of the mental health legislative framework; standard diagnostic criteria and major classifications; mental health pathological and pathophysiological bases; co-morbid cardiometabolic presentations; diagnostic, screening and outcome tools; and standard treatments and therapies for mental health and mental health target conditions.
- 9.4.2 Explain the different roles of health professionals in delivering multi-disciplinary care to clients with mental health conditions.
- 9.4.3 Consider medications, medical and allied health interventions/treatments, clinical and safety risks and their implications on clinical status, exercise and functional capacity, and the design and delivery of safe and effective exercise for individual clients.

- 9.4.4 Formulate and demonstrate employing, interpreting and responding to prognostic screening tools and identifying, evaluating and reporting exercise capacity and clinical status changes including verbal and written communication with clients, referrer and other relevant stakeholders.
- 9.4.5 Examine barriers and their implication for exercise participation and/or progression in rehabilitation environment including individual and sociocultural/economic factors; and formulate mitigation strategies.
- 9.4.6 Identify and respond to changes in clinical status inter and intra session including behaviours non-conducive to exercise participation and/or progression, emergency response triggers including actual or perceived risk of harm to self, to / from others; medication and/or substance misuse; co-morbidities; exercise and functional capacity changes.
- 9.4.7 Revise communication and leadership style to respond to changes in client and other stakeholder needs and manage changes in clinical situation(s).

Standard 10: Metabolic domain

10.1 Target conditions

Overweight and obesity, metabolic syndrome, dyslipidaemias (acquired and familial), Type 1 diabetes, Type 2 diabetes, gestational diabetes, sleep apnoea, polycystic ovarian syndrome

10.2 Guiding principle

Graduates of an accredited course in clinical exercise physiology apply foundational knowledge of metabolic conditions / co-morbidities / treatments, risk / monitoring considerations in a multi-disciplinary metabolic care environment to design and translate into practice, safe, evidence-based exercise interventions for clients with / at risk of metabolic conditions.

10.3 Assessment expectations

The metabolic domain is assessed using a combination of blended learning assessment and feedback techniques that incorporate theoretical and practical elements, problem-based and simulated learning modes, case study analyses and clinical practicum.

10.4 Elements of graduate outcomes

Graduates of an accredited course in clinical exercise physiology can:

- 10.4.1 Explain metabolic condition pathological and pathophysiological bases; and roles of health professionals in delivering multi-disciplinary care to clients with metabolic conditions.
- 10.4.2 Practise using point of care testing (POCT) devices to measure lipid profiles and blood glucose levels at rest, during and post exercise.
- 10.4.3 Consider medications, surgical, medical and allied health interventions/treatments, clinical and safety risks including hypo/hyperglycaemia and their implications on clinical status, exercise and functional capacity, and the design and delivery of safe and effective exercise for individual clients.
- 10.4.4 Recognise adverse clinical signs and symptoms including hypoglycaemic signs and symptoms; and identify and respond to changes in clinical status, co-morbidities, exercise and functional capacity, inter and intra session.
- 10.4.5 Revise communication and leadership style to respond to changes in client and other stakeholder needs and manage changes in clinical situation(s).
- 10.4.6 Identify changes in clinical status that need to be reported/referred onwards to deliver safe and effective client centred care in a multi-disciplinary care environment.

Standard 11: Musculoskeletal domain

11.1 Target conditions

Osteoarthritis, rheumatoid arthritis, osteoporosis, acute, sub-acute and chronic specific and non-specific musculoskeletal pain / injuries / disabilities

11.2 Guiding principle

Graduates of an accredited course in clinical exercise physiology apply foundational knowledge of musculoskeletal conditions / co-morbidities / treatments, risk / capacity / monitoring considerations, injury prevention / rehabilitation principles in a multidisciplinary musculoskeletal care environment to design and translate into practice, safe, evidence based exercise interventions for clients with musculoskeletal conditions / injury risk factors.

11.3 Assessment expectations

- 11.3.1 The musculoskeletal domain is assessed using a combination of blended learning assessment and feedback techniques that incorporate theoretical and practical elements, problem-based and simulated learning modes, case study analyses and clinical practicum.
- 11.3.2 Assessment includes a focus on pre-screening and pre-program exercise testing and assessment.

11.4 Elements of graduate outcomes

Graduates of an accredited course in clinical exercise physiology can:

- 11.4.1 Examine in depth, the pathological and pathophysiological bases of all target musculoskeletal conditions; and the interactions between exercise and acute, sub-acute and chronic conditions; musculoskeletal signs, symptoms and medications; and sport, rehabilitation and activity of daily living (ADL) environments.
- 11.4.2 Appraise the mode, intensity, duration frequency, volume and progression on clinical outcomes for musculoskeletal clients.
- 11.4.3 Evaluate functional body mechanics and the interrelationship to the rehabilitation setting and needs.
- 11.4.4 Examine: the scope of exercise physiology practice in rehabilitation and return to optimised function environments; and the use and limitations in use of common diagnostic tests to inform exercise prescription.
- 11.4.5 Compare the roles of Accredited Exercise Physiologist (AEP) and other health professionals in delivering care to musculoskeletal clientele in multi-disciplinary care and rehabilitation environments.

- 11.4.6 Select and employ pre-employment and other screening tools/techniques within the AEP scope of practice to establish client baseline exercise and functional capacity; inform exercise prescription and monitor client progression.
- 11.4.7 Consider medications, surgical, medical and allied health interventions/treatments, clinical and safety risks, co-morbidities, indications, contraindications, exercise setting, treatment objectives and their implications on clinical status, exercise and functional capacity, and the design and delivery of safe and effective exercise and intervention plans for individual musculoskeletal, rehabilitation and pre-employment clients.
- 11.4.8 Recognise clinical signs and symptoms of adverse musculoskeletal response and identify and respond to changes in clinical status, co-morbidities, exercise and functional capacity, inter and intra session.
- 11.4.9 Practise musculoskeletal assessments before exercise on musculoskeletal cohort clients.
- 11.4.10 Practise employing pre-screening tools; exercise and functional capacity techniques; and active, passive and resistive assessment tests within the boundaries of the ESSA AEP Scope of practice.
- 11.4.11 Compose, deliver and revise safe and effective functional exercise and workplace rehabilitation programs that consider client clinical status and needs, treatment objectives/progress, influencing parameters and protocol/guidelines including age appropriate exercise guidelines and final phase rehabilitation/functional conditions/return to play guidelines.
- 11.4.12 Employ behavioural change strategies and revise communication to facilitate mitigation of cognitive, behavioural and other influencing factors on treatment progression for individual musculoskeletal and rehabilitation clients.
- 11.4.13 Relay and report initial and changed status/progress to key stakeholders including client and referrer, considering good reporting principles and legislative and compensable scheme requirements.

Standard 12: Neurological domain

12.1 Target conditions

Stroke (CVA), Spinal Cord Injury (SCI), Parkinson's Disease, Cerebral Palsy, Multiple Sclerosis (MS), Dementia, Traumatic Brain Injury (TBI)

12.2 Guiding principle

Graduates of an accredited course in clinical exercise physiology apply foundational knowledge of neurological conditions and co-morbidities; treatments, risk, capacity, monitoring and ethical considerations; and environmental / behavioural influencing factors in a multidisciplinary neurological care environment to design and translate into practice, safe and ethical, evidence based exercise interventions for clients with neurological conditions.

12.3 Assessment expectations

The neurological domain is assessed using a combination of blended learning assessment and feedback techniques that incorporate theoretical and practical elements, problem-based learning, case study analyses, simulated learning modes and/or clinical practicum.

12.4 Elements of graduate outcomes

Graduates of an accredited course in clinical exercise physiology can:

- 12.4.1 Examine: brain and neural pathway physiology and pathophysiological bases; the core principles of the health care system framework including informed consent and cognitive deficits and the roles of health professionals in delivering care to neurological clientele in multi-disciplinary care and rehabilitation environments.
- 12.4.2 Examine the diagnostic criteria and procedures; comorbid secondary complications and their implications on clinical and safety risks for exercise participation and potential to change clinical status for neurological clientele.
- 12.4.3 Consider medications, surgical, medical and allied health interventions/treatments, clinical and safety risks and their implications on clinical status, exercise and functional capacity, acute and chronic exercise response in the design and delivery of safe and effective exercise for individual neurological clients.
- 12.4.4 Recognise adverse clinical signs and symptoms and identify and respond to changes in clinical status, co-morbidities, exercise and functional capacity, intra session and formulate response(s) to changing clinical situations.
- 12.4.5 Practise setting up an appropriate exercise environment that accommodates the accessibility and mobilisation needs of the neurological client and manual handling techniques to assist with client transfers within the parameters of professional practice.

- 12.4.6 Practise assessing and monitoring fatigue levels before, during and after exercise.
- 12.4.7 Practise employing tools/techniques to measure client clinical status and interpreting clinical status results and their implications for safe and effective exercise participation for neurological clientele.
- 12.4.8 Employ behavioural change strategies and revise communication to accommodate decreased executive function in neurological clients; accommodate changes in neurological client clinical status inter and intra session; and facilitate mitigation of cognitive, behavioural and other influencing factors on treatment progression for individual neurological and rehabilitation clients.
- 12.4.9 Relay and report initial and changed status/progress to key stakeholders including client and referrer, considering good reporting principles and legislative and compensable scheme requirements.

Standard 13: Respiratory/Pulmonary domain

13.1 Target conditions

Asthma, chronic obstructive pulmonary / airways disease, cystic fibrosis

13.2 Guiding principle

Graduates of an accredited course in clinical exercise physiology apply foundational knowledge of respiratory / pulmonary conditions / co-morbidities / treatments, risk / capacity / monitoring considerations, in a multi-disciplinary respiratory / pulmonary care environment to design and translate into practice, safe, evidence-based exercise interventions for clients with respiratory / pulmonary conditions.

13.3 Assessment expectations

The pulmonary domain is assessed using a combination of blended learning assessment and feedback techniques that incorporate theoretical and practical elements, problem-based and simulated learning modes, case study analyses and clinical practicum.

13.4 Elements of graduate outcomes

Graduates of an accredited course in clinical exercise physiology can:

- 13.4.1 Examine pathological and pathophysiological bases of respiratory/pulmonary target conditions; their diagnostic procedures; and the roles of health professionals in delivering care to respiratory/pulmonary clientele in a multi-disciplinary care environment.
- 13.4.2 Practise employing protocols/methods/techniques appropriate to administering respiratory reliever medications.
- 13.4.3 Practise employing personal and equipment hygiene protocols/methods/techniques.
- 13.4.4 Practise methodologies and using technologies to measure respiratory and pulmonary function and capacity and interpret clinical status results and their implications for safe and effective exercise participation for respiratory/pulmonary clientele.
- 13.4.5 Consider medications, surgical, medical and allied health interventions/treatments, clinical and safety risks, treatment goals and their implications on clinical status, exercise and functional capacity in the design and delivery of safe and effective exercise for individual respiratory/pulmonary clients.

- 13.4.6 Recognise adverse clinical signs and symptoms; and identify and respond to changes in clinical status, co-morbidities, exercise and functional capacity, inter and intra session including initiating first-aid response and/or assisting in administering respiratory reliever medications within professional practice parameters.
- 13.4.7 Relay and report initial and changed status/progress to key health professionals including client and referrer, considering good reporting principles and legislative and compensable scheme requirements.

Glossary

<i>AEP pathology domains</i>	A sphere of activity, influence and knowledge related to the typical behaviour of a disease seen by and AEP in clinical practice
<i>Apply</i>	Put to use for some practical purpose
<i>Appraise</i>	Assess the value or quality of; Assess the performance of (someone/something) formally
<i>Behaviour change</i>	Replacing an unhealthy behaviour with a healthy behaviour
<i>Behaviour change (public health)</i>	A broad range of activities and approaches which focus on the individual, community and environmental influences on behaviours that affect health
<i>Broad knowledge</i>	A general or extensive area of learning
<i>Case management</i>	A collaborative process that assesses, plans, implements, coordinates, monitors, and evaluates the options and services required to meet the client's health and human service needs
<i>Choose</i>	Pick out (someone or something) as being the best or most appropriate of two or more alternatives; Decide on a course of action
<i>Clinical Exercise Physiology</i>	Body of knowledge involving physiologic, metabolic, and structural responses to short-term and long-term physical activity that have clinical relevance
<i>Clinical status</i>	Status of a person's condition at a point in time
<i>Coherent knowledge</i>	Knowledge that is logically ordered, sound and/ or integrated
<i>Comorbidity</i>	The existence of two or more diseases or conditions in the same individual at the same time
<i>Compare</i>	Estimate, measure or note the similarity/dissimilarity between
<i>Comply</i>	The act of being in alignment with guidelines, regulations and/or legislation
<i>Compliance</i>	The following by a patient of a recommended course of treatment
<i>Consider</i>	Think carefully about (something) typically before making a decision
<i>Contraindication</i>	A condition which makes a particular treatment or procedure potentially inadvisable.
<i>Demonstrate</i>	Clearly show the existence or truth of (something) by giving proof or evidence; Give a practical exhibition and explanation of (how a machine, skill, or craft works or is performed)

<i>Differentiate</i>	Recognise or ascertain what makes (someone/something) different
<i>Discuss</i>	Talk or write about (a topic) in detail, taking into account different issue or ideas
<i>Distinguish</i>	Recognise or treat (someone/something) as different
<i>Employ</i>	Make use of
<i>Evaluate</i>	Form an idea of the amount, number of, value of/assess
<i>Evidence based practice</i>	Applying the best available research results (evidence) when making decisions about health care. Health care professionals who perform evidence-based practice use research evidence along with clinical expertise and patient preferences.
<i>Explain</i>	Make (an idea or situation) clear to someone by describing it in more detail or revealing relevant facts; Give a reason as to justify (an action or event)
<i>Formulate</i>	Create or prepare methodically
<i>Foundational knowledge</i>	Initial or introductory knowledge upon which further development can be built
<i>Functional capacity</i>	The extent to which a person can increase exercise intensity and maintain increased levels, dependent largely on cardiovascular fitness
<i>Identify</i>	Establish or indicate who or what (someone or something) is; associate someone or something closely with; regard as having strong links with
<i>Informed consent</i>	The process by which the treating health care provider discloses appropriate information to a competent patient so that the patient may make a voluntary choice to accept or refuse treatment
<i>Interpret</i>	Explain the meaning of (information or actions); To construe or understand in a particular way
<i>Illustrate</i>	Serve as an example of
<i>Judge</i>	Form an opinion or conclusion about
<i>Knowledge</i>	What a graduate knows and understand and it can be described in terms of depth, breadth, kinds of knowledge and complexity
<i>Multi-disciplinary care</i>	Involves a range of health professionals, from one or more organisations, working together to deliver comprehensive patient care

<i>Pathology</i>	The scientific study of the nature of disease and its causes, processes, development, and consequences
<i>Pathophysiology</i>	The functional changes associated with or resulting from disease or injury
<i>Point of Care Testing (POCT)</i>	Testing that is performed near or at the site of a patient with the result leading to possible change in the care of the patient
<i>Practice</i>	The actual application or use of an idea, belief, or method, as opposed to theories relating to it The customary, habitual or expected procedure or way of doing something
<i>Practise</i>	Perform (an activity) or exercise (a skill) repeatedly or regularly in order to acquire, improve or maintain proficiency in it; Carry out or perform (a particular activity, method or custom) habitually or regularly
<i>Relay</i>	Receive and pass on (information or a message)
<i>Respond</i>	Do something as a reaction to someone or something
<i>Revise</i>	Reconsider and alter (something) in the light of further evidence
<i>Risk stratification</i>	A systematic process to identify and formally estimate the probability of a person succumbing to a disease or benefiting from a treatment for that disease by analysing their medical history
<i>Select</i>	Carefully chosen from a larger number as being the best or most valuable
<i>Self-management</i>	Management of or by oneself; the taking of responsibility for one's own behaviour and well-being