

Purpose

The 2020 Accredited Exercise Scientist (AES) Professional Standards for accreditation are the minimum standards for entry and requirements for ongoing professional practice as an Exercise & Sports Science Australia (ESSA) AES.

The purpose of this guide is to support exercise science course providers with further information on the intent and the context of the standards.

This document includes:

- » Key information considered by the Accredited Exercise Scientist Review Committee and ESSA Standards Council in developing the 2020 standards
- » Further details on areas of practice
- » This document should be read in conjunction with the AES Professional Standards for Accreditation and AES Scope of Practice documents.

Overview

ESSA's strategic approach to this iteration of the standards is based on a need to move towards outcomes-based standards that are robust, future-proofed and support ESSA's long-term work in the international space. With this revision, there has been a deliberate shift away from a prescriptive set of criteria towards a suite of professional elements that acknowledge the breadth of Exercise Science. The high-level nature of the standards was informed by several factors including:

- » Advice from curriculum consultant;
- » External influencing factors such as the National Registration and Accreditation Scheme and Australian Qualifications Framework reviews; and
- » Feedback from key stakeholders such as education providers of the need to support flexibility and points of difference in courses.

This iteration of the standards is the first review completed since the ESSA National Board moved Exercise Science into the accreditation arm of ESSA. As such, the structure and language of the standards has been updated to reflect this position. This includes:

- » Renaming of standards to AES Professional Standards for Accreditation (in line with Sports Science and Exercise Physiology); and
- » Removal of references to graduates, courses and assessment expectations to reflect that these are the minimum professional requirements to gain accreditation.

ESSA retains a separate Scope of Practice document which will be revised as part of the standards. ESSA Scope of Practice documents are documents designed to inform consumers, external stakeholders (such as employers, government bodies, regulators), students, and education providers of the common roles of the ESSA accredited professions.

The standards are not designed to be a stand-alone document for determining competence, safety, or scope. They should be considered as part of ESSA's broader self-regulatory framework including professional practice standards, Code of Professional Conduct & Ethical Practice, and Scope of Practice documents.

1.0 Structure

The standards are introduced with Professional Practice which integrates all the skills learnt through the remaining standards, then each are ordered alphabetically. There is no expectation that the elements within a standard will need to be embedded into specific subjects, although all elements should be embedded where appropriate throughout the degree curriculum. It is envisaged that this will provide academic units with the flexibility to integrate the minimum Exercise Science standards into unique program offerings that have emphasis in specific areas of expertise or local need.

1.1 Professional Attributes

Accredited Exercise Scientists are tertiary-trained professionals equipped with the knowledge and skills to apply the science of exercise when developing interventions that improve health and fitness, well-being and performance, and that assist in the prevention of injury and chronic conditions. They are also equipped with knowledge of human structure, function and other specialised knowledge that they apply within exercise science principles

An AES can work under the supervision of an AEP when supporting those under a chronic management plan. ESSA has deliberately shifted to Professional Attributes and away from graduate outcomes to reflect:

- » these standards are the minimum requirements for ESSA accreditation;
- » there are often different pathways into the ESSA accreditations, and as such, not all individuals seeking accreditation will be immediate graduates; and
- » the need to future-proof based on key industry influences such as the proposed revisions to the Australian Qualifications Framework and the rising popularity of micro-credentialing.

The Professional Attributes summarise the attributes expected of the individual as a result of meeting each standard and the elements within.

The standards have been written so that education providers can translate them into graduate outcomes for their courses.

1.2 Assessment Expectations

Assessment Expectations have not been defined in the AES Professional Standards for accreditation. Previously the standards included reference to the use of specific learning tools (i.e., 'case studies'). As a result of removing these references from specific standards, academics are able to deliver curriculum in the way they believe will best promote learning in the areas in which they work. It will also allow the standards to remain current with changes in practice and pedagogy.

Where knowledge and skills refer to a plural, it is expected that a breadth of topics/types of clients will be covered to confirm competency. The elements have been mapped to the professional attributes, so it is expected that content will be covered at a sufficient depth to accumulate towards meeting the attributes.

For example, it is not expected that experience with every diverse cultural group or clinical condition is obtained, however, students should have a broad awareness and some experience in order to gain transferrable knowledge and skills.

1.3 Bloom's Taxonomy

The ESSA Standards Council have directed that Bloom's Taxonomy continue to be used in professional standards for accreditation. This position has been informed by several factors including the recommendations of the curriculum consultant contracted to support the review.

Bloom's Taxonomy is a classification of the different objectives and skills that educators set for their students (learning objectives).

Each element begins with a Bloom's verb which provides guidance on the level and type of assessment expected.

In revising the standards from the 2013 version, there has also been a move to simplify by reducing the number of Bloom's terms used per element.

1.4 Important Terminology and Concepts

A new section titled Important Terminology and Concepts has been included to align with the other ESSA Professional Standard for Accreditation documents (Accredited Exercise Physiologist, Accredited Sports Scientist and Accredited High Performance Manager). This section provides greater detail about the intent, focus and expectations of key components of the standards such as the roles/scope of practice of Exercise Scientists and professional practice such as cultural safety, inclusivity and diversity.

ESSA retains a separate Foundational Scope of Practice document which has been revised as part of the standards. ESSA Foundational Scope of Practice documents are designed to inform consumers, external stakeholders (such as employers, government bodies, regulators), students and education providers of the common roles of the ESSA accredited professions. ESSA recommends utilising the scope of practice document as a resource.

INTEGRATION

The concept of being able to integrate knowledge and skills from across the Exercise Science sub-disciplines has been moved up to Professional Attributes and out of the elements based on industry feedback.

To be able to integrate and apply the exercise knowledge and skills within the standards, the foundational knowledge base must be strong.

CULTURAL DIVERSITY

ESSA has made a strong strategic commitment to diversity, such as through ESSA's Reconciliation Action Plan. Students should be aware of considerations for working across diverse populations and demonstrate the ability to incorporate/adapt services as appropriate.

1.5 Standards

The overall document is referred to as the AES Professional Standards for Accreditation, and each area/sub-discipline is referred to as a standard (e.g. Professional Practice, Human Anatomy). Each standard consists of a guiding principle, which summarises the expectation of the standard and the specific elements that provide the content.

In this version of the standards, the term core sub-discipline has been used. In previous versions of standards this has been referred to as a study area. The change reflects the move to outcomes-based standards.

1.6 Glossary

The glossary is a key inclusion of the document and provides greater detail on what ESSA expects in relation to key terms/concepts. This should be referred to in the first instance when questions about meaning of concepts are raised.

2.0 Content

2.1 Settings

The revised standards aim to keep references to these contexts broad and inclusive for AES working in various settings. An AES is expected to understand scope and opportunities across the broad settings and have exposure where possible. Transferability and application of skills across these settings is a core focus of the standards.

ESSA encourages the role of an AES in promoting lifelong physical activity. This can be done through practice that may encompass young children when developing fundamental movement patterns, through to older adults adapting to physical/cognitive declines.

Delivery of programs for clinical conditions – this is a continuation of 2013 standards.

2.2 Evidence based practice

An intentional shift from best practice to evidence-based practice has been addressed throughout these standards.

2.3 AQF Review

The AES Professional Standards for Accreditation have been aligned with the Australian Qualification Framework (AQF) requirements of a minimum of a bachelor's degree. The AQF review report published in 2019 has been considered during the development of the standards (such as in the inclusion of certain soft skills – see mapping documents for more information), as has recent information from TEQSA highlighted by the Accreditation Council.

2.4 Health and Fitness, Well-being and Performance

In line with ESSA's [Scope of Practice Framework Policy](#), the terminology in the standards reflects that an AES can provide services to clients for the purposes of improving health and fitness, well-being and performance. It is expected that an AES will have good foundational knowledge and skills to apply the science of exercise and support working in any of these areas, as well as the ability to work with individuals and groups of people at various population levels.

The standards also highlight the importance of working to increase physical activity and exercise levels.

The standards have been reviewed for alignment with workforce opportunities identified by ESSA including ESSA's Future Workforce Report 2019, Career Pathways document developed by the Exercise Science Advisory Group, and ESSA's Policy and Advocacy Unit AES advocacy strategy.

2.5 New and Strengthened Concepts

A key goal of the review is to take into consideration for the future needs of the AES profession in terms of workforce opportunities. Key components that have been addressed include:

- » ESSA's short to medium-term advocacy strategy for the AES profession includes targeting the preventative health space including childhood obesity, chronic disease, aged care, mental health and education.
- » Informed consent – specifically referenced in standards 1 and 7 and would be expected to be covered within Professional Practice standard as part of ethical practice and legislation compliance.
- » Behavioural change principles – a key point of difference for ESSA professions, in comparison to other exercise professions, is the knowledge and skills provided to support and empower people to be more active across the lifespan. Behaviour change principles such as:
 - » Transtheoretical model of behaviour change
 - » The Health Belief Model
 - » The Theory of Planned Behaviour

- » Cultural inclusivity and diversity – the standards align with ESSA’s Reconciliation Action Plan. The standards also recognise the diversity in the people AES are likely to work with from gender diverse individuals to neuro-diverse individual. AES can also work with person living with physical and/or intellectual disabilities
- » Soft skills – in response to industry feedback and AQF review, there is an increased emphasis on critical thinking and communication.
- » Advocacy and leadership for the profession – an AESs need to be confident in describing their scope of practice, and advocate for themselves, the profession and their clients.
- » Interprofessional practice - an AES needs to understand the importance of collaborative practice and when to onward refer to achieve outcomes for clients. Demonstrating this capacity is important to support Accredited Exercise Scientists in emerging areas of practice.
- » Digital literacy and the need to be agile and innovative in embracing technology whilst maintaining the safety and quality. This includes understanding the importance of digital literacy, key concepts (such as telepractice) and how to critically appraise technology.
- » Infection Control – although not explicitly mentioned within the standards this is a concept that has emerged as relevant to AES practice, and relates to risk considerations. It is important Accredited Exercise Scientists understand the correct practices and take the appropriate steps toward limiting the spread of diseases
- » Value based health care is a by-product when elements of Professional Practice are appropriately exemplified. Health care applies when an AES in working as an allied health professional or in a healthcare setting.

3.0 Advancing Practice

3.1 Advancing AES Practice into AEP and ASpS

As the AES qualification remains a pre-requisite for Exercise Physiology accreditation eligibility, and the main pathway pre-requisite into the Sports Science accreditations, the standards have been developed to support moving into either one of these streams. Courses can be weighted towards the clinical space or sports performance so long as the basic skills are covered, and some exposure is given to the other to support well-rounded professionals.

3.2 Advancements in AES Practice

There have been some workforce opportunities emerging for the AES profession.’

As of 2022 Accredited Exercise Scientists:

- » can now provide personal training services through some private health insurers
- » are being recognised to provide personal training services through NDIS

Owner	Regulation Services	Date	10/11/2022
Custodian	Standards Council	Version	2.1
Last Approval Date	10/11/2022	Details	Minor review
Next Review Date	10/11/2024		

Disclaimer: ESSA has chosen to use a broad, principle-based approach to define the minimum professional standards for accreditation as an Accredited Exercise Scientist. By adopting this approach, ESSA aims to harness individual competencies, embrace innovative practice and remain sensitive to changes within the industry environment. The information provided in this document is not intended to be professional advice and is no substitute for professional or medical advice relevant to the user’s circumstances and purposes. Individuals must ensure they have the appropriate competencies for all activities undertaken. ESSA does not endorse, warrant or make any representations in relation to, and does not accept any liability in relation to, the goods and services of those third parties who utilise this document.