Exercise & Sports Science Australia
2013 Application Guide

ESSA
EXERCISE & SPORTS SCIENCE AUSTRALIA

PURPOSE

To assist prospective ESSA applicants, their supervisors, universities and other stakeholders in understanding the membership and accreditation processes of ESSA. Please contact the ESSA office via email info@essa.org.au if you are unable to locate a response to your enquiry within this document.

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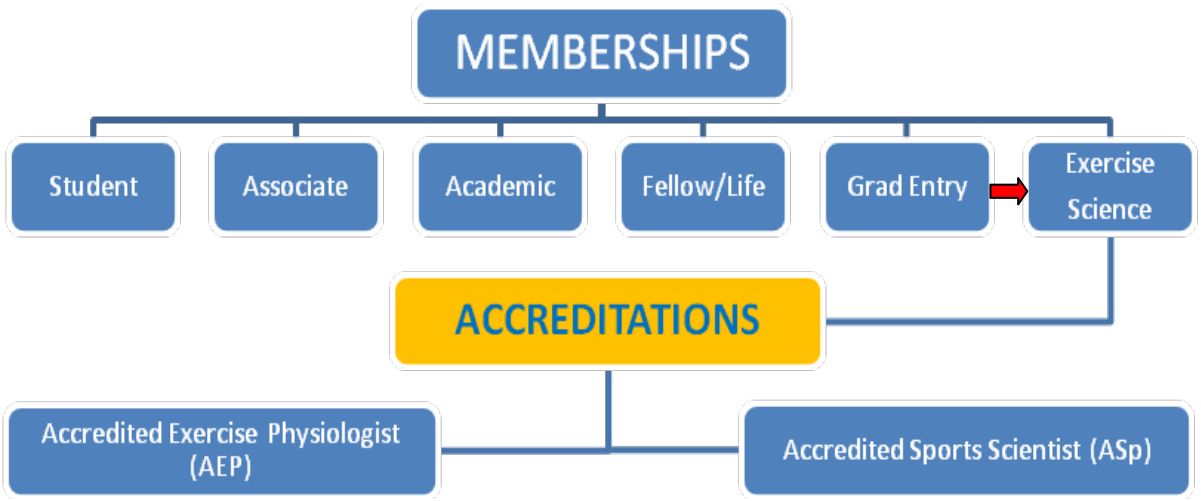
INTRODUCTION

ESSA Membership Structure



Types of ESSA membership and accreditation - which one is right for you?

ESSA supports the career pathways for graduates of exercise/sports science and exercise physiology university courses. To join ESSA, you must be either studying or a graduate in the field of exercise/sports science or exercise physiology, be an academic within the industry, or have completed a degree that may contribute to the industry.

There are seven categories of membership and two categories of accreditation with ESSA. They have been designed to cater for the needs of different groups. The categories are:

Student membership is open to students in the process of completing a three or four year university degree or postgraduate university studies in the field of exercise and sports science or exercise physiology.

Graduate entry membership is available to persons who have completed an undergraduate degree in the field of exercise and sports science who are applying to undertake postgraduate university studies in the field of exercise and sports science or clinical exercise physiology.

Graduate entry membership is also open to those prospective students who have completed a degree related to the exercise and sport science field and are applying to undertake postgraduate university studies in the field of clinical exercise physiology.

Exercise science (full) membership is open to applicants who have completed a National University Course Accreditation Program (NUCAP) accredited exercise science course or applicants who have completed a three or four year exercise or sports science degree and can meet the eligibility criteria. Exercise science (full) membership is a prerequisite to obtaining accreditation as an accredited exercise physiologist and/or accredited sports scientist with ESSA.

Academic membership is open to university academics with a higher degree in exercise and sports science or a related area (minimum of Masters), or are currently enrolled in a relevant higher degree program, and who currently hold an equal to or greater than 50% appointment at a university or research institution in the area of exercise and sports science. Appointments may be teaching only, research only, or teaching and research, and must be a minimum of 1 year at an academic level.

Associate membership is available to persons in other professional fields whose qualifications would not meet the criteria for exercise science (full) membership of ESSA, but whose degree may contribute to the field of exercise and sports science in Australia.

Fellow membership is available to individuals who have held full membership with ESSA of a minimum of 5 years. This membership category recognises those who have achieved a high level of professional accomplishment, responsibility and service to the association. Fellow membership applications are accepted by ESSA on an annual basis, due in December each year.

Life membership is available to long standing members of ESSA. Life membership recognises a distinguished level of service and commitment to the association, an exemplary level of competence, ethical conduct and knowledge within the exercise and sports science industry, and recognizes distinguished and long standing service to Exercise & Sports Science Australia.

Member Benefits

All members of ESSA have access to a range of special discounts, ESSA policies and guidelines, educational material, ESSA merchandise and ESSA activities.

Accreditations

To be eligible for accreditation, you must hold a current exercise science (full) membership. The accreditation categories are:

Accredited exercise physiologist (AEP) accreditation is available to exercise and sports science or exercise physiology graduates who meet all of the required knowledge and skills criteria and have completed the required 500 hours of approved practicum, and who have gained current financial exercise science (full) membership.

Accredited sports scientist (ASp) accreditation is open to those professionals working in the elite sports science industry. You must have a minimum of a bachelors degree with honours or a graduate diploma in an exercise or sports science related discipline with evidence of specialisation in a sub-field of sports science. You also need to have completed 500 hours of practicum, 350 of which needs to be under the mentorship of a sports scientist who either holds accreditation or is eligible for sports science accreditation.

Internationally qualified applicants

If you qualified from an overseas university and wish to apply for membership/accreditation, you will need to provide unit outlines to demonstrate the content covered in your degree. If your university transcripts and unit outlines are in a foreign language, we require that you provide certified copies of translated documents in English. ESSA will assess whether your international qualifications meet membership requirements. You may be required to undertake additional experience or study to meet the membership requirements.

ESSA does not recognise any membership or accreditations from international bodies to gain automatic transfer of qualifications.

Qualified a long time ago?

ESSA requires information about your university study so we can assess this against our membership and accreditation criteria. Please contact your university to obtain archived unit outlines or provide information on current units and ask the university to verify that the content covered when you studied was similar.

ESSA **cannot** assess your application without details of your study.

ESSA is unable to assist you with accessing this information. We are however able to provide you with the name of the current ESSA university liaison officer (Australian universities only) who should be able to assist you.

2014 changes to accreditation as an accredited exercise physiologist (AEP) and NUCAP courses

There are a number of universities in Australia who offer accredited courses that meet the ESSA criteria, under our National University Course Accreditation Program (NUCAP). Courses are accredited at two levels:

1. Exercise science (ES); and
2. Exercise physiology (EP)

These courses may be referred to as NUCAP ES or NUCAP EP courses. Click here for a list of courses with NUCAP accreditation.

You can choose to do a NUCAP or non NUCAP course to gain exercise science (full) membership, as long as you meet the eligibility requirements.

Those completing a non NUCAP EP course can apply for exercise physiology accreditation (AEP) up until **31 December 2013**. After this date (from **1 January 2014)**, only NUCAP EP course graduates will be eligible to apply for exercise physiology accreditation (AEP). That is, graduates

of non NUCAP approved courses will not be eligible to apply for exercise physiology accreditation from **1 January 2014.**

If you are a graduate from a non NUCAP approved course or are graduating from a non NUCAP approved course in 2013 and wish to apply to become an AEP, it is essential that your application is received by ESSA by **31 December 2013**.

No late applications or extensions will be given.

Graduates of a NUCAP EP course have a limited timeframe of 2 years from completion of their course to apply for AEP accreditation.

Where to send your completed application

Exercise & Sports Science Australia (ESSA)
The Assessment Team
Locked Bag 102
Albion DC QLD 4010

Note: Please do not post your application in folders, ring binders or plastic sleeves. Secure each application with a bulldog clip. ESSA suggests that when sending your application, you obtain a tracking number from Australia Post and that you take a copy of your application prior to posting.

YOUR GUIDE TO COMPLETING THE 2013 APPLICATION FORM/S

2013 Student Membership Application Guide

Check your eligibility

Page 1 - Checklist and instructions on attachments for each section of the application form

Read the application form in its entirety. Read this application guide before completing your form.

Page 2 - Complete personal details

If you change your address or email after submitting your application, please contact ESSA by phone or email to notify us of the change, phone: (07) 3862 4122 or email: info@essa.org.au.

When completing personal details please provide your work details if your role is related to the field. If you have changed your name since completing your degree please submit proof of your name change e.g. copy of marriage certificate.

Page 3 – Complete payment details

Include payment of $45.00 including GST.

Please enclose a cheque/money order for your membership fee or complete the credit card payment slip. Cheques or money orders should be made payable to Exercise & Sports Science Australia. If paying by credit card, please ensure that the expiry date of the card is valid for at least 60 days from the date you submit your application.

Please note: all credit card payments will incur a merchant fee of 1.5% of the payment total.

Please allow 15 working days for your application to be assessed. Once your application has been approved, your payment will be processed within 5 working days.

Page 3 - Personal declarations

Please ensure that you sign both declarations.

Page 3 - University qualifications

Please ensure you provide details of tertiary studies related to the field that you have completed or are currently undertaking.

2013 Graduate Entry Membership Application Guide

Check your eligibility

There are two types of graduate entry application forms;
If you have completed a NUCAP exercise science course within the last 2 years complete the graduate entry membership application form – NUCAP.

If you have completed a non NUCAP undergraduate degree or completed a NUCAP accredited course over 2 years ago complete the graduate entry membership form – NON NUCAP.

Major membership requirements

1. University studies must meet the subject areas and the knowledge and skills criteria
2. 140 hours experience in exercise delivery services to apparently healthy clients

Page 1 – Checklist and instructions on attachments for each section of the application form

Read the application form in its entirety. Read this application guide before completing your form. The checklist will assist you in ensuring you have provided all of the required information.

Page 2 – Complete personal details

If you change your address or email after submitting your application, please contact ESSA by phone or email to notify us of the change, phone: (07) 3862 4122 or email: info@essa.org.au.

When completing personal details please provide your work details if your role is related to the field. If you have changed your name since completing your degree please submit proof of your name change e.g. copy of marriage certificate.

Page 3 – Complete payment details

Please note: all credit card payments incur a merchant fee of 1.5% of the payment total. Once your application has been approved, your payment will be processed within 5 working days. If paying by credit card, please ensure that the expiry date of the card is valid for at least 60 days from the date you submit your application.

NUCAP applicants:
Include payment of $90.00 including GST.

Please enclose a cheque/money order for your membership fee or complete the credit card payment slip. Cheques should be made payable to Exercise & Sports Science Australia.

Please allow 30 working days for your application to be assessed. Please ensure your application is completed in full and thorough information/evidence is provided or additional assessment times apply.

NON NUCAP applicants:
Include receipt of application payment of $55.00 including GST.
Include application approval payment of $45.00 including GST. This payment will only be presented if the application is approved.

Please enclose two separate cheques/money orders for your receipt of application fee and application approval fee or complete the credit card payment slip. Cheques should be made payable to Exercise & Sports Science Australia. If paying by credit card please ensure your credit card is current.

Please allow 45 working days for your application to be assessed.

Please note:

- If the application is not approved upon initial assessment due to insufficient information or evidence, you will be provided the opportunity to submit further information within 3 months and a charge of $55.00 including GST (non-refundable) will apply to re-submit the further information for assessment. Upon receipt of further information a further 45 working days will apply for the application to be re-assessed. If the further information is not received within this timeframe the application will be deemed declined.

- If the application is not approved upon re-submission (as detailed above) due to insufficient information or evidence, you will be provided the opportunity to submit further information within a 1 month period and a further charge of $55.00 including GST (non-refundable) will apply to re-submit information for a second time for assessment. Upon receipt of further information a further 45 working days will apply for the application to be re-assessed. If the further information is not received within this timeframe the application will be deemed declined.

- If the application is not approved upon a third assessment the application will be declined and re-submission of an application will not be accepted for a minimum period of 6 months.

Page 3 – Complete personal declaration
Please ensure that you sign all three declarations.

Page 4 – Complete professional referee
Your professional referee must be someone who was either your practicum supervisor or who employed you in the area of exercise and sports science. A personal referee will not be accepted.

Page 4 – Complete university qualifications achieved

Please complete the allocated box using the correct name of your qualification. List all of your relevant university studies.

* NUCAP applicants only – please include the code of your qualification.

**** PLEASE NOTE - the completion date refers to when you finished your studies, not when your degree was conferred (graduation ceremony).**

Page 4 – Prospective post-graduate university study

List the university that you will be enrolling in and the degree that you will be studying.

Attach a **certified copy** of your official academic transcript. This cannot be an internet generated printout of your results. The transcript must clearly state that the qualification has been "awarded" or "conferred." If your transcript does not state that the degree has been awarded or conferred you are required to supply a copy of your testamur or letter from your university stating you have completed the degree and are eligible for graduation. Please do not submit original copies of your academic transcript, as these will not be returned to you.

Who can certify my transcript?

A justice of the peace or notary can certify. Click here for a full list.

Page 5 – Statutory declaration

Sign the statutory declaration and have a witness sign. Click here for the full list of people who are qualified to witness a statutory declaration.

Remember that your application will be provided under a statutory declaration. It is a criminal offence to deliberately provide false or misleading information under a statutory declaration.

Click here for an example of a completed statutory declaration.

Page 6 – Practicum - Apparently healthy clients

Complete the apparently healthy practicum reference form – your supervisor needs to sign this, tick the competent box and list their exercise science related educational qualifications and experience in the exercise field.

Ensure you have completed the practicum reference form for each practicum site and attach this to the front of each logbook.

****NON NUCAP applicants please note:** If the information or evidence supplied is deemed insufficient additional fees and assessment times apply for further information to be submitted.

What are apparently healthy clients?

These are generally classified as clients with no known pathologies and are not being treated for a specific condition or injury. The breakdown of hours requires a minimum of 60% to be face to

face delivery of exercise services, maximum of 35% for preparation for exercise delivery and a maximum of 5% for administration duties.

Who can supervise my 140 hours with apparently healthy clientele?

- An accredited exercise physiologist (AEP)
- An ESSA exercise science member (ES)
- A degree qualified exercise and sports science professional
- A personal trainer with a Certificate IV in Fitness with a minimum of 10 years industry experience
- A degree qualified physical education teacher
- A bachelor degree qualified-trained allied health professional with experience in exercise delivery (e.g. physiotherapist)
- A state, national or international level sports coach
- An Australian Strength and Conditioning Association (ASCA) level 2 or 3 coach

Can I claim practicum hours prior to commencing university?

No. Practicum hours can only be accrued from the commencement of an appropriate university program in the field of exercise and sports science.

Do supervisors need to have a minimum amount of years of experience?

ESSA recommends that clinical supervisors have at least two years full time equivalent experience before supervising students however, this recommendation is not a mandatory requirement, except if the supervisor's qualification is a Certificate IV in which case a minimum of 10 years industry experience is required. We encourage supervisors and students to consider their own knowledge, skills and abilities prior to commencing any practicum, to foster a quality practicum with effective learning experiences.

What happens if there is no appropriate supervisor available?

Practicum hours can only be claimed when supervised by an appropriate person. This may mean that you will need to travel to source appropriate supervision.

Is there a time limit on completing my hours, and having my logbooks, and practicum reference forms signed by my supervisor?

For all hours completed after 1 January 2011, practicum hours must be signed off by supervisors within 2 months of the practicum taking place. Hours not signed by supervisors within this time frame will not be able to be counted within an application.

What happens if I can't get my supervisor to sign off on my hours? e.g. they are in another country/state/town, or I don't know how to find them anymore e.g. they have retired?

We recommend having all your hours signed off, and the practicum reference forms completed before completing your practicum.

If you are unable to make contact with a supervisor (for hours claimed prior to 1 January 2011), record the supervisor's name, qualifications, experience and areas of expertise and ESSA will determine the suitability of the listed supervisor.

Page 7 – Practicum/work experience logbook template

Example apparently healthy logbook

ESSA logbook template

****NON NUCAP applicants please note:** If the information or evidence supplied is deemed insufficient additional fees and assessment times apply for further information to be submitted.

*Page 8 – University study table –*NON NUCAP applicants only*

You are required to provide evidence you have met ALL of the necessary criteria for the nine study areas listed in Appendix 3 and have completed a unit in the four core areas of study. List all subjects that you have successfully completed which show learning outcomes, course content and lecture schedules to confirm you have met all of the criteria. You are required to supply your university course outlines/descriptions.

2013 Upgrade from Graduate Entry Membership to Exercise Science/Full Membership Guide

If you hold graduate entry membership, upon graduation please submit a copy of your postgraduate certificate and you will transfer to an exercise science member.

Page 1 – Complete personal details

If you change your address or email after submitting your application, please contact ESSA by phone or email to notify us of the change, phone: (07) 3862 4122 or email: info@essa.org.au.

When completing personal details please provide your work details if your role is related to the field. If you have changed your name since completing your degree please submit proof of your name change e.g. copy of marriage certificate.

Page 2 – Complete payment details

Include payment of $180.00 including GST.

Please enclose a cheque/money order for your membership fee or complete the credit card payment slip. Cheques should be made payable to Exercise & Sports Science Australia.

If paying by credit card, please ensure that the expiry date of the card is valid for at least 60 days from the date you submit your application. Please note: all credit card payments will incur a merchant fee of 1.5% of the payment total.

Once your application has been approved, your payment will be processed within 5 working days.

Page 2 – Complete personal declaration

Please ensure that you sign all three declarations.

Attachments

Please attach your graduate entry membership approval letter. If you were granted conditional membership you will need to attach the evidence that confirms you have met the required conditions.

2013 Exercise Science/Full Membership Application Guide

Check your eligibility

There are two types of exercise science/full membership application forms:
If you have completed a NUCAP approved exercise science course within the last 2 years choose the Exercise Science/Full Membership Application Form - NUCAP.

If you have completed a non NUCAP undergraduate degree or completed a NUCAP approved exercise science course over 2 years ago choose the Exercise Science/Full Membership Application Form – NON NUCAP.

Major membership requirements

1. University studies must meet the subject areas and the knowledge and skills criteria.
2. 140 hours experience related to the field of exercise and sports science or exercise physiology.

Page 1 - Checklist and instructions on attachments for each section of the application form

Read the application form in its entirety. Read this application guide before completing your form.

Page 2 - Complete personal details

If you change your address or email after submitting your application, please contact ESSA by phone or email to notify us of the change, phone: (07) 3862 4122 or email: info@essa.org.au.

When completing personal details please provide your work details if your role is related to the field. If you have changed your name since completing your degree please submit proof of your name change e.g. copy of marriage certificate.

Page 3 - Complete payment details

Please note: all credit card payments incur a merchant fee of 1.5% of the payment total. Once your application has been approved, your payment will be processed within 5 working days. If paying by credit card, please ensure that the expiry date of the card is valid for at least 60 days from the date you submit your application.

NUCAP applicants:
Include payment of $265.00 including GST or $180.00 including GST if you were a student member of ESSA in 2012.

Please enclose a cheque/money order for your membership fee or complete the credit card payment slip. Cheques should be made payable to Exercise & Sports Science Australia.

Please allow 30 working days for your application to be assessed. Please ensure your application is completed in full and thorough information/evidence is provided or additional assessment times apply.

NON NUCAP applicants:
Include receipt of application payment of $55.00 including GST (non-refundable).
Include approval of application payment of $210.00 including GST (or $125.00 including GST if you were a student member of ESSA in 2012). This payment will only be presented if the application is approved.

Please enclose two separate cheques/money orders for your receipt of application fee or approval of application fee or complete the credit card payment slip. Cheques should be made payable to Exercise & Sports Science Australia. If paying by credit card please ensure your credit card is current.

Please allow 45 working days for your application to be assessed.

Please note:

- If the application is not approved upon initial assessment due to insufficient information or evidence, you will be provided the opportunity to submit further information within 3 months and a charge of $55.00 including GST (non-refundable) will apply to re-submit the further information for assessment. Upon receipt of further information a further 45 working days will apply for the application to be re-assessed. If the further information is not received within this timeframe the application will be deemed declined.

- If the application is not approved upon re-submission (as detailed above) due to insufficient information or evidence, you will be provided the opportunity to submit further information within a 1 month period and a further charge of $55.00 including GST (non-refundable) will apply to re-submit information for a second time for assessment. Upon receipt of further information a further 45 working days will apply for the application to be re-assessed. If the further information is not received within this timeframe the application will be deemed declined.

- If the application is not approved upon a third assessment the application will be declined and re-submission of an application will not be accepted for a minimum period of 6 months.

Page 4 - Complete personal declaration

Please ensure that you sign all three declarations.

Page 4 - Complete professional referee

Your professional referee must be someone who was either your practicum supervisor or who employed you in the area of exercise and sports science. A personal referee will not be accepted.

Page 5 - Complete university qualifications achieved

Please complete the allocated box using the correct name of your qualification. List all of your relevant university studies.

* NUCAP applicants only – please include the code of your qualification.

**** PLEASE NOTE - the completion date refers to when you finished your studies, not when your degree was conferred (graduation ceremony).**

Attach academic transcript

Attach a certified copy of your official academic transcript. This cannot be an internet generated printout of your results. The transcript must clearly state that the qualification has been "awarded" or "conferred." If your transcript does not state that the degree has been awarded or conferred, you are required to supply a copy of your testamur or letter from your university stating you have completed the degree and are eligible for graduation. Please do not submit original copies of your academic transcript as these will not be returned to you.

Who can certify my transcript?

A justice of the peace or notary can certify. Click here for a full list of people qualified to certify.

Page 6 - Statutory declaration

Sign the statutory declaration and have a witness sign. Click here for the full list of people who are qualified to witness a statutory declaration.

Remember that your application will be provided under a statutory declaration. It is a criminal offence to deliberately provide false or misleading information under a statutory declaration.

Click here for an example of a completed statutory declaration.

Page 7 - Practicum reference form

Ask your supervisors to complete the practicum reference form. They need to list their exercise science related educational qualifications and experience in the exercise field.

Suitable supervisors include:

- An accredited exercise physiologist (AEP)
- An ESSA exercise science member (ES)
- A degree qualified exercise and sports science professional
- A personal trainer with a Certificate IV in Fitness with a minimum of 10 years industry experience
- A degree qualified physical education teacher
- A bachelor degree qualified-trained allied health professional with experience in exercise delivery (e.g. physiotherapist)
- A state, national and international level sports coach
- An Australian Strength and Conditioning Association (ASCA) level 2 or 3 coach

Ensure you have a completed practicum reference form for each practicum site and attach this to the front of each logbook.

Please refer to Appendix 7 for a list of appropriate practicums for exercise science membership.

Page 8 - Practicum/work experience logbook

Click here for an example of a practicum logbook

****NON NUCAP applicants please note:** If the information or evidence supplied is deemed insufficient additional fees and assessment times apply for further information to be submitted.

Page 9 - University study table– NON NUCAP applicants only*

You are required to provide evidence you have met ALL of the necessary criteria for the nine study areas listed in Appendix 3, and have completed a unit in the four core areas of study. List all subjects that you have successfully completed to confirm, through learning outcomes, course content and lecture schedules, that you have met all of the criteria. You are required to supply your university course outlines/course descriptions.

Section A - For each of the four core areas of study you need to have completed a full unit of study in this area.

Section B - You need to have completed a full unit in each of the four core sub-discipline areas AND have met all of the required criteria listed in Appendix 3.

- Advanced subjects - You need to have completed in-depth study in at least two of the four core sub-discipline areas of study.

Section C - You need to show that you have covered all of the required criteria.

Click here for an example university study table

Click here for the nine criteria areas

2013 Accredited Exercise Physiologist (AEP) Application Guide

Check your eligibility

* You must be an exercise science/full member of ESSA before your AEP application can be assessed. You can submit both application forms at the same time.

There are two types of accredited exercise physiologist application forms:

1. If you have completed a NUCAP accredited exercise physiology course within the last 2 years choose the AEP application form - NUCAP.
2. If you have completed a non NUCAP accredited degree or if you completed a NUCAP accredited course more than 2 years ago choose the AEP application form – NON NUCAP.

Click here for a full list of NUCAP accredited courses.

What form do I choose if my undergraduate degree was a NUCAP accredited ES course, but my post graduate studies are not NUCAP accredited at the EP level?

Choose the AEP application form NON NUCAP.

Major membership requirements

1. University studies must meet the 'knowledge criteria'.
2. Practicum or work must meet the 'application' criteria.
3. 500 hours of practicum;
    a. At least 140 hours with apparently healthy clients
    b. At least 140 hours with cardiopulmonary/metabolic clients
    c. At least 140 hours with musculoskeletal/neurological/neuromuscular clients
    d. Up to 80 hours of other clinical health delivery activities or up to 80 hours in addition to b and/or c

Page 2 - Checklist and instructions on attachments for each section of the application form

Read the application form in its entirety. Read this application guide before completing your form.

Page 3 - Complete personal details

If you change your address or email after submitting your application, please contact ESSA by phone or email to notify us of the change, phone: (07) 3862 4122 or email: info@essa.org.au.

When completing personal details please provide your work details if your role is related to the field. If you have changed your name since completing your degree please submit proof of your name change e.g. copy of marriage certificate.

Page 5 - Complete the payment details

Please note: all credit card payments will incur a merchant fee of 1.5% of the payment total. Once your application has been approved, your payment will be processed within 5 working days. Please ensure that your credit card is current for at least 60 days on submission.

NUCAP applicants:

Include accreditation payment of $320.00 including GST. Please also make sure your exercise science/full membership is current.

Please enclose a cheque/money order for your accreditation fee or complete the credit card payment slip. Cheques should be made payable to Exercise & Sports Science Australia.

Please allow 30 working days for your application to be assessed. Please ensure your application is completed in full and thorough information/evidence is provided or additional assessment times apply.

NON NUCAP applicants:

Include receipt of application payment of $55.00 including GST.

Include application approval payment of $265.00 including GST. This payment will only be presented if this application is approved.

Please enclose two separate cheques/money orders for your receipt of application fee and application approval fee or complete the credit card payment slip. Cheques should be made payable to Exercise & Sports Science Australia. Please also make sure your exercise science/ full membership is current.

Please allow 45 working days for your application to be assessed.

Please note:

- If the application is not approved upon initial assessment due to insufficient information or evidence, you will be provided the opportunity to submit further information within 3 months and a charge of $55.00 including GST (non-refundable) will apply to re-submit the further information for assessment. Upon receipt of further information a further 45 working days will apply for the application to be re-assessed. If the further information is not received within this timeframe the application will be deemed declined.

- If the application is not approved upon re-submission (as detailed above) due to insufficient information or evidence, you will be provided the opportunity to submit further information within a 1 month period and a further charge of $55.00 including GST (non-refundable) will apply to re-submit information for a second time for assessment. Upon receipt of further information a further 45 working days will apply for the application to be re-assessed. If the further information is not received within this timeframe the application will be deemed declined.

- If the application is not approved upon a third assessment the application will be declined and re-submission of an application will not be accepted for a minimum period of 6 months.

Page 5 - Complete professional declaration

Please ensure you sign all three declarations.

Page 6 - Complete university qualifications achieved

Please complete the allocated box using the correct name of your qualification. List all of your relevant university studies.

**** PLEASE NOTE - the completion date refers to when you finished your studies, not when your degree was conferred (graduation ceremony).**

* NUCAP applicants only – please include the code of your qualification.

Attach a copy of your academic transcript

Attach a certified copy of your official academic transcript. This cannot be an internet generated printout of your results. The transcript must clearly state that the qualification has been "awarded" or "conferred." If your transcript does not state that the degree has been awarded or conferred you are required to supply a copy of your testamur or letter from your university stating you have completed the degree and are eligible for graduation. Please do not submit original copies of your academic transcript as these will not be returned to you.

Who can certify my transcript?

A justice of the peace or notary. Click here for a full list

Page 7 - Complete the statutory declaration

Sign the statutory declaration and have a witness sign. Click here for the full list of people qualified to witness a statutory declaration.

Remember that your application will be provided under a statutory declaration. It is a criminal offence to deliberately provide false or misleading information under a statutory declaration.

Click here for an example of a completed statutory declaration.

Attach resume, first aid and CPR statement of attainment/s

1) Provide a current resume
2) Supply evidence of a current first aid and CPR statement of attainment

A copy of your first aid statement of attainment (HLTFA311A) and cardiopulmonary resuscitation statement of attainment (HLTCPR211A) showing the expiry /currency date are required by ESSA to become an AEP.

Please ensure that your first aid and CPR statement of attainments are valid for at least 45 days when you submit your application to ESSA. CPR must be renewed yearly and first aid renewed

every 3 years with an Australian registered training organisation if you are directly working with clients.

If you are applying from overseas, you must undertake an Australian first aid and CPR course within 3 months of arriving and then your accreditation can be approved. Certificates are to be provided to the association upon completion. Failure to do so will result in your accreditation being **revoked**.

Page 8 - Practicum summary table

Complete the practicum summary table and total your hours for each category. Please list all of your practicum sites.

For all frequently asked questions about practicum please refer to page 23 of this guide.

Page 9 – Logbook template

Page 10 – Apparently healthy clinical practicum reference form

Page 11 – Cardiopulmonary/metabolic clinical practicum reference form

Page 12 – Musculoskeletal/neurological/neuromuscular clinical practicum reference form

Page 13 – Other clinical health delivery clinical practicum reference form

****NON NUCAP applicants please note:** If the information or evidence supplied is deemed insufficient additional fees and assessment times apply for further information to be submitted.

Tips for your clinical practicum reference forms:

- **The site supervisor must sign the form and tick the competent box. The supervisor must sign the form within two months of practicum completion. All supervisors must be trained in exercise prescription, please refer to page 26 of this guide for a list of suitable supervisors.**
- **These forms are a cover page for your logbook and give a summary of your practicum. Please attach the form to the front of the relevant log book.**

For NON NUCAP applicants only

Page 14-16 - Complete the evidence based criteria table

This can be completed in Word. Please adjust columns as needed. Complete the table with reference to Appendix 5. All 'knowledge' criteria must be met through formal university studies.

Enclose copies of unit study overviews (unit outlines) for all subjects used to demonstrate evidence in the evidence based criteria table. These must be supplied via clearly marked

numerical tabs. The application criteria can be met through university studies, practicum or work.

What happens if I can't get my old unit outlines as evidence?

You will need to find alternative sources of evidence. ESSA requires information about your university study so we can assess this against our subject criteria. Please make contact with your university to obtain archived outlines or provide information on current units and ask the university to verify that the content covered when you studied was similar. ESSA **cannot** assess your application without evidence of your study.

ESSA can neither assist applicants in obtaining these, nor demand that universities provide these documents. Each individual will need to apply to their university to obtain these documents for their application. ESSA is able to provide you with the name of the current ESSA university liaison officer (Australian universities only) who should be able to assist you.

****NON NUCAP applicants please note:** If the information or evidence supplied is deemed insufficient additional fees and assessment times apply for further information to be submitted.

Page 17 – 25 – Accredited exercise physiology criteria

Frequently asked questions for practicum, supervision and examples provided

1 – Practicum requirements – activities and hours

The core role of an AEP is to prescribe exercise interventions for the treatment of chronic conditions as per the ESSA target pathologies. See AEP scope of practice

You are required to provide 500 hours of practicum. This is broken down into categories.

a) At least 140 hours with apparently healthy clients
b) At least 140 hours with cardiopulmonary/metabolic clients
c) At least 140 hours with musculoskeletal/neurological/neuromuscular clients
d) Up to 80 hours of other clinical health delivery activities or up to 80 hours in addition to b and/or c

Hour breakdown

Your practicum hours need to be broken down into the following ratios for each of your logbook classifications except for the "other clinical" classification:

- 60% of face to face delivery of exercise delivery (minimum)
- 35% of preparation for exercise services (maximum)
- 5% of administration duties (maximum)

What is included in a minimum of 60% face to face delivery of exercise services?

These activities must be related to the **delivery or [1]planned delivery** of an exercise intervention. Assessments that are conducted with no intention of being used to support an exercise intervention (e.g. healthy heart checks, 12 lead ECG exercise stress test for diagnosis) are not included under this category, but may be included in the 'other clinical health delivery' section.

Screening and risk assessment prior to prescribing exercise:

- Reviewing referrals
- Undertaking risk assessment, based on presentation
- Taking histories: medical (including disease, injuries and disabilities), psychosocial, exercise and lifestyle
- Recording medical and other interventions

Assessment of a client prior to prescribing exercise or to assess the effectiveness of an exercise intervention:

- Assessing exercise capacities
- Assessing functional capacities (e.g. vocational / occupational, recreational, activities of daily living)
- Assessing psychosocial status in relation to lifestyle change and maintenance

Planning of exercise interventions (planning undertaken with the client):

- Setting of goals: client, practitioner and other health professionals
- Identifying barriers and facilitators for exercise and physical activity
- Providing solutions for barriers
- Designing exercise interventions (in consultation with client)
- Motivational interviewing

Delivery of exercise interventions (including exercise prescription):

- Teaching correct technique and coaching
- Assisting clients to achieve self-management
- Managing programs: e.g. daily / weekly planner
- Maintenance of exercise interventions: retention of clients and adherence to exercise

1 Examples of assessments conducted in relation to the delivery and planned delivery of an exercise intervention include: (i) student completes an assessment on a client but the clinical placement ends before the client returns for the exercise intervention, (ii) a client undergoes an assessment with the goal to lead onto an exercise intervention but then discontinues the service with the clinical supervisor, and (iii) a student conducts a follow-up assessment following an exercise intervention without having been involved in the delivery of the intervention themselves.

ESSA requires that candidates demonstrate that a range of the above activities are undertaken, but does not prescribe a breakdown of these hours.

What is included in a maximum of 35% preparation for exercise service delivery, observation and other clinical activities related to the AEP scope of practice?

These activities should generally relate to the provision of face to face delivery of exercise services.

Case preparation and planning (planning done outside of client appointments)

- Analysis of data including analysis of assessments before and after exercise interventions
- Research to prepare for a client service e.g. research of evidence-based practice for the particular case
- Preparation of "phantom reports" for referrers[2]
- Preparation and participation in case meetings and case conferencing
- Travel time may also be approved under this category if the applicant is able to demonstrate active learning along the lines of the above dot points, and this work is completed during travel (e.g. the supervisor travels with the student and they discuss cases)

[2]Although students may prepare "phantom reports" for referrers and clients and this is encouraged for learning purposes, under no circumstances are these reports to be sent to referrers or clients under the name of the student practitioner. Rather, reports are prepared and submitted according to the scope of practice of AEPs and these would normally be approved and sent under the name of the AEP or other health professional.

Observation:

- Practitioners must be providing an actual service for clients, and
- Students must engage with supervisors in discussing the client(s) and services provided: this should provide active and problem based learning situations

A maximum of 5% of hours can be used towards administration duties

- Record keeping and data input
- Using Medical Director or similar practice management software
- Setting up referral forms
- Billing – learning about Medicare, DVA, WorkCover and health funds
- In-services and inductions

What are apparently healthy hours?

These hours are generally classified as clients with no known pathologies, that are not participating in an exercise intervention for a specific purpose (e.g. to manage a condition or injury). The focus can be prevention for chronic conditions. Apparently healthy clients are defined by the Australian Pre-Exercise Screening System.

Sports coaching (skills based coaching) cannot be included; however fitness coaching, or strength and conditioning coaching can be counted towards this category.

Cardiopulmonary/metabolic clinical practicum

These hours include prescription of exercise services for clients diagnosed with a cardiopulmonary or metabolic condition.

Musculoskeletal/neurological/neuromuscular clinical practicum

These hours include prescription of exercise services for clients diagnosed with a musculoskeletal, neurological or neuromuscular condition.

*Clients are classified for their purpose of treatment, most clients have several co-morbidities however you must decide their main purpose for treatment and classify them in one pathology category.

Other clinical practicum

- Provision of exercise service delivery for pathologies related to cancers, mental health, renal, or other pathologies
- Provision of exercise service delivery for pathologies in the target pathology categories (i.e. cardiopulmonary/metabolic and musculoskeletal/neuromuscular/neurological)
- Diagnostic investigations or procedures (e.g. cardiac, pulmonary or other clinical investigations or procedures, ECG stress testing)
- Health/wellness checks (e.g. point of care testing)
- Job capacity assessment, functional capacity assessments
- Laboratory/research testing/screening
- Case management
- Health promotion, or providing health education or workplace health programs

Some activities fall outside the AEP scope of practice. These are broadly in the area of passive therapies and include massage, manipulations, McKenzie therapy, dry-needling, ultrasound therapy, and others. You are also unable to claim any hours that were completed prior to you starting an appropriate university degree in the field of exercise and sports science.

2 - Requirements for supervision

Practicum supervisors must be suitably qualified for the type of practicum that you are completing and are required to sign your logbooks and clinical practicum reference forms within two months of the applicant completing the practicum placement.

Who can supervise the 140 hours with apparently healthy clientele?

- An accredited exercise physiologist (AEP)
- An ESSA exercise science member (ES)
- A degree qualified exercise and sports science professional
- A personal trainer with a Certificate IV in Fitness with a minimum of 10 years industry experience
- A degree qualified physical education teacher
- A bachelor degree qualified-trained allied health professional with experience in exercise delivery (e.g. physiotherapist)
- A state, national and international level sports coach
- An Australian Strength and Conditioning Association (ASCA) level 2 or 3 coach

Who can supervise the 360 hours of clinical clientele?

- An accredited exercise physiologist (AEP)
- An ESSA exercise science member (ES)
- A degree qualified exercise physiologist
- A bachelor degree qualified/trained allied health professional with experience in exercise delivery (e.g. physiotherapist, cardiac care nurse, occupational therapist, doctor, clinical nurse consultant, osteopath)

****Please note -** For the cardiopulmonary/metabolic **AND** the musculoskeletal/ neuromuscular/neurological practicums, you need to have at least some hours (more than 2 hours) supervised by an AEP. The number of hours required is at the discretion of the AEP supervisor.

What supervisors can sign off 'other' hours?

A degree trained professional with relevant training e.g. if you have worked with a podiatrist doing gait assessments, the Podiatrist can sign off on these hours. If you developed exercise interventions, then a supervisor with training in exercise prescription, such as an AEP would need to sign off this portion of your practicum.

What happens if there is no appropriate supervisor available?

Practicum hours can only be claimed when supervised by an appropriate person. This may mean that you will need to travel to source appropriate supervision, or find a supervisor willing and capable of providing distance supervision.

Is it possible to arrange distance supervision?

Delivery of exercise services may incorporate practicum activities that are supervised via internet or telephone based video conferencing (e.g. web streaming, e-health conferencing).

In these instances, it is expected that the student will conduct the face to face delivery of services with a client while being overseen by a supervisor via real-time video conferencing. The video conferencing technology must incorporate real-time video and audio streaming, and must allow for unimpeded communication between the student and supervisor. In any case where video supervision is used, due consideration should be given to the safety of the client, and appropriate risk mitigation planning should be undertaken in advance by the supervisor.

Video supervision may not be appropriate for use with high-risk clients. It would not be appropriate for a student to complete all their clinical practicum hours under video supervision, and students are therefore encouraged to undertake some of their clinical practicum hours under direct supervision, preferably preceding distance supervision.

3 – Practicum sites

Note - The following list of appropriate places to undertake practicum is not exhaustive, it is to provide you with examples of where might be suitable to complete your practicum.

1. **Apparently healthy practicum (140 hours)**
   - Health and fitness clubs
   - Sporting organisations/clubs
   - Schools

2. **Cardiopulmonary/metabolic practicum (140 hours minimum)**
   - Exercise physiology or multi-disciplinary clinics
   - Hospitals
   - Aged care facilities
   - Cardiac care services within public/private hospitals and the community

3. **Musculoskeletal/neuromuscular/neurological practicum (140 hours minimum)**
   - Exercise physiology or multi-disciplinary clinics
   - Hospitals
   - Aged care facilities
   - Physiotherapy clinics
   - Spinal injury clinics
   - Sporting organisations/clubs

4. **Other clinical health practicum (80 hours maximum)**
   - Any location listed within the above three areas
   - Renal clinic
   - Cancer care clinic/program
   - Cardiac stress testing clinic/ward

4 - Practicum logbooks

Logbooks must clearly demonstrate the following:

- **Time:** The amount of time allocated to each activity.
- **Case:** Patient pathologies that you have gained experience in working with (whilst on practicum).
- **Description of services**: Type of services delivered, including face to face, or preparation for face to face training, observation and other; or administrative tasks; what the tasks included.
- **Signature:** Your supervisor must sign the logbook. If you have the same supervisor for all of your cases, the supervisor can sign a whole page, they do not need to sign every log entry.

What should my logbook entries look like?

Practicum can be logged per client, per day, per group. You can certainly 'bulk' the hours together, however the description of services must reflect the time e.g. if an 8 hour day is logged, then the clients/cases should be listed. If there are groups of clients, then a description of the group rather than every individual is accepted. The description of services should demonstrate what happened during that day e.g. for an 8 hour day, seeing approximately 6 clients, it may take two paragraphs to describe the services.

Overall, a logbook should show that you have worked with a range of clients and pathologies. The description of services should show you have been involved in a range of activities that fall under the AEP scope of practice e.g. assessments, exercise prescription, education, research, adherence discussions, progressions and outcomes. Your logbooks are assessed against the application criteria in Appendix 5.

How do I classify my hours in my logbook? Some clients have multiple co-morbidities.

ESSA encourages applicants to allocate hours of practicum for people with multiple co-morbidities according to:

1. the primary purpose of treatment or primary diagnosis; and/or
2. at the discretion of the supervisor

For example:

1. Client Red is a 50 yr old diabetic and has had a recent hip replacement. The exercise intervention considers the diabetes, but as it is successfully managed and controlled with diet/medication the exercises are more focussed on rehabilitation for the hip replacements. This client would therefore be classified under musculoskeletal rather than metabolic. Client Red cannot be logged under both categories.
2. Client Green is a 36 yo amputee who lost his leg in a motor vehicle accident 12 months ago. He has been referred by his physiotherapist for long term strength conditioning. He would be classified under musculoskeletal/neuromuscular/neurological.
3. Client Yellow is a 82 yo who suffers from chronic heart failure. The client also has mild hypertension, diabetes and had a knee replacement 6 years ago. Client Yellow has been referred to the cardiac rehab phase 3 program. The exercise intervention would consider the previous knee replacement. This client has been referred for the purpose of

treating the chronic heart failure and would therefore be classified under cardiopulmonary.

See examples of logbook entries for each category

Click here for apparently healthy
Click here for cardiopulmonary/metabolic
Click here for musculoskeletal/neurological/neuromuscular
Click here for other clinical health delivery

Note: it is the applicant's responsibility to ensure all forms required within the application are signed.

ESSA will accept signed clinical practicum reference forms and logbooks by scanned version, for applicants that have had an international practicum supervisor. However, a reminder that as of 1 January 2011, practicum hours must be signed off by supervisors within 2 months of the practicum taking place. Hours not signed by supervisors within this timeframe will not be able to be counted within an application.

General practicum questions

If I have not gained experience in all of the target pathology areas in a category, can I still apply?

Yes. Applicants need to undertake practicum in at least one of the target pathology areas (the diseases) of the target pathology category. However, ESSA encourages students to get experience from a range of different pathologies. e.g. you can submit all hours from the cardiopulmonary/metabolic target with all practicum experience gained from working with people with Type 2 Diabetes.

In addition, you need to ensure you have at least 60% of your practicum hours as face to face exercise service delivery experience within each of the target pathology categories, and that you meet the total 500 hours minimum practicum requirement.

Each applicant is responsible for ensuring they have gained the required experience to meet all aspects of the practicum requirements. No individual amendments to the requirements will be approved by ESSA.

I had three supervisors at one practicum site, do they all have to verify my competency?

No. Individual supervisors need to sign off the logbooks but one supervisor can sign the clinical practicum reference form on behalf of the other supervisors.

I completed my hours prior to 2008, can these hours still count towards accreditation?

Yes. Applicants who completed their practicum hours prior to 1 January 2008 do not need to supply logbook evidence for completed hours. ESSA does require completed clinical practicum reference forms for all hours claimed as well as supporting documentation giving evidence of your knowledge and application during this time.

Forms of evidence to support completion of hours may include: reference letters or certificates of employment from employers. Forms of evidence to support working across the pathology areas may include examples of work/exercise interventions/assessments or case studies. One example is required for each pathology group. Applicants must supply clinical practicum reference forms and meet all current requirements of the AEP application.

Can I use abbreviations in the logbook?

Yes. Please include a summary page of your abbreviations, if you choose to use them throughout your application.

How should I record hours if I have done over 20 hours with one client, or seen them regularly?

This can be recorded as one entry. The description of services must reflect the time i.e. 20 hours for one client over 6 weeks should include information on the initial assessment, precautions and contraindications to consider, exercise prescription and rationale, progressions and outcomes. Applicants are required to specify the dates the services took place, and the duration/time allocated. As a guide, this may be approximately 2 paragraphs. If your logbook does not contain the detail required (particularly if used as evidence within your criteria table) additional information will be requested.

For NON NUCAP applicants only. How do I complete the evidence based criteria table? How much information do I include?

Please use sentences to describe how:

1) Your university knowledge has met the criteria. Do not simply list the unit of study – ensure you describe how your labs, lectures, etc. met the 'knowledge' criteria and refer to the appropriate unit outline.
2) Your practical experience – practicum or work has met the criteria. It is recommended that you refer to an actual client from your practical experience to help demonstrate that you have met the 'application' criteria.

Example:

CRITERION		EVIDENCE		
		UNIVERSITY	**PRACTICE**	**WORK**
7.	Medications: effects on exercise responses	Pharmacology, unit xyz (see appendix xyz). I developed a working knowledge of first line medications for chronic conditions as listed in the AEP target pathologies. I also learnt about the effects of many medications on wellbeing, HR, muscle function, exercise response etc	During my practicum at xyz I treated four patients on beta-blockers (see cardiopulmonary logbook dates xyz and xyz), I researched using MIMS. Beta-blockers cause heart rate to xyz and it is important to be aware of the affects on exercise response as it can indicate XYZ….."	
13	Precautions and contraindications	Exercise prescription xyz. This unit covered modes, intensities, volumes of exercise that may cause deterioration or adverse as well as contraindications for all AEP target pathologies.	During my practicum at xyz I saw clients with various AEP target pathologies and had to be aware of contraindications to prescribe the most safe and effective exercise intervention e.g. during hydrotherapy I made sure clients were well hydrated and used RPE as the warm temperature and exercise load in the water affects HR.	At my current workplace some of my clients have had total hip replacements and I therefore make sure initial exercises do not include hip flexion that exceeds 90 degrees.
26.	Assessments of exercise capacity in clients with musculoskeletal conditions	Musculoskeletal Rehabilitation, unit xyz (see appendix xyz). University lectures and practicals involving testing peers using various assessments such as grip strength, sit to stands, gait analysis.	During my practicum at xyz and xyz I was involved with assessing clients post back surgery, shoulder surgery and clients that were falls risk. Our typical assessments involved analysing gait, 30 second sit to stand test, assessing getting up off floor and shoulder ROM testing.	In my current work at xyz I have assessed clients using the Berg balance scale as verified in my musculoskeletal practicum.

2013 Accredited Sports Scientist (ASp) Application Guide

Check your eligibility

Page 2 – Checklist and instructions on attachments for each section of the application form

Before submitting the application form, please read and complete the points in the checklist. This will assist in ensuring you have not omitted any of the requirements.

Page 3 - Complete personal details

If you change your address or email after submitting your application, please contact ESSA by phone or email to notify us of the change, phone: (07) 3862 4122 or email: info@essa.org.au.

When completing personal details please provide your work details if your role is related to the field. If you have changed your name since completing your degree please submit proof of your name change e.g. copy of marriage certificate.

Page 4 - Complete payment details

Include payment of $57.00 including GST or $31.00 including GST if you are a current financial AEP.

Please enclose a cheque/money order for your membership fee or complete the credit card payment slip. Cheques should be made payable to Exercise & Sports Science Australia.

Please note: all credit card payments incur a merchant fee of 1.5% of the payment total. If paying by credit card, please ensure that the expiry date of the card is valid for at least 60 days from the date you submit your application.

Once your application has been approved, your payment will be processed within 5 working days.

Page 5 - Professional declaration

Please ensure you sign all three declarations.

Page 5 - Professional referee

Your professional referee must be someone who was either your practicum supervisor or who employed you in the area of sports science. A personal referee will not be accepted.

Page 6 - University qualifications achieved

Please ensure you provide details of tertiary studies related to the field that you have completed. Tick the box that best reflects your specialist area. You may tick more than one.

Attach a copy of your academic transcript

Attach a certified copy of your official academic transcript. This cannot be an internet generated printout of your results. The transcript must clearly state that the qualification has

been “awarded” or “conferred.” If your transcript does not state that the degree has been awarded or conferred you are required to supply a copy of your testamur or letter from your university stating you have completed the degree and are eligible for graduation. Please do not submit original copies of your academic transcript as these will not be returned to you.

Who can certify my transcript?

A justice of the peace or notary. Click here for a full list

Page 6 - Previous position/s held

Please complete the table and use brief sentences or bullet points to summarise your relevant experience.

Page 7 - Statutory declaration

Sign the statutory declaration and have a witness sign. Click here for the full list of people authorised to witness a statutory declaration.

Remember that your application will be provided under a statutory declaration. It is a criminal offence to deliberately provide false or misleading information under a statutory declaration.

Click here for an example of a completed statutory declaration.

Page 8 - Knowledge, skills and competencies + professional practicum experience

Please provide a portfolio of evidence demonstrating how you meet all of the 10 criteria listed in the table found on page 8 of the application form. Please provide reference letters from suitable qualified employers/supervisors and provide supporting documentation to show you meet the criteria.

Your supporting documentation may include copies of training programs, assessments, position descriptions, logbooks of hours, case studies, examples of data analysis, ISAK certificate, evidence of your communication with staff/athletes if appropriate and evidence of continuing education related to your specialist area. Please provide as much information as possible.

2013 Academic Membership Application Guide

Page 1 – Checklist, eligibility requirements and instructions on attachments for each section of the application form

Read the application form in its entirety.

Read this application guide before completing the application form.

Page 2 – Complete personal details

If you change your address or email after submitting your application, please contact ESSA by phone or email to notify us of the change, phone: (07) 3862 4122 or email: info@essa.org.au.

When completing personal details please provide your work details if your role is related to the field. If you have changed your name since completing your degree please submit proof of your name change e.g. copy of marriage certificate.

Page 3 – Complete payment details

Include payment of $133.00 including GST.

Please enclose a cheque/money order for your membership fee or complete the credit card payment slip. Cheques should be made payable to Exercise & Sports Science Australia.

If paying by credit card, please ensure that the expiry date of the card is valid for at least 60 days from the date you submit your application. Please note: all credit card payments will incur a merchant fee of 1.5% of the payment total.

Once your application has been approved, your payment will be processed within 5 working days.

Page 3 – Personal declaration

Please ensure that you sign both declarations.

Page 3 – University qualifications achieved

Please ensure you provide details of tertiary studies that you have completed.

Attach a certified copy of your transcript/s. This must be a transcript and clearly state that the qualification has been "awarded" or "conferred." Please do not submit original copies of your academic transcript as these will not be returned to you.

Page 4 – Statutory declaration

Sign the statutory declaration and have a witness sign. Click here for the full list of people authorised to witness a statutory declaration.

Remember that your application will be provided under a statutory declaration. It is a criminal offence to deliberately provide false or misleading information under a statutory declaration.
Click here for an example of a completed statutory declaration.

2013 Associate Membership Application Guide

Page 1 - Checklist, eligibility and instructions on attachments for each section of the application form

Read the application form in its entirety.
Read this application guide before completing the application form.

Page 2 - Complete personal details

If you change your address or email after submitting your application, please contact ESSA by phone or email to notify us of the change. If you have changed your name since completing your degree, please submit proof of name change e.g. copy of marriage certificate.

Page 3 - Complete payment section

Include payment of $133.00 including GST.

Please enclose a cheque/money order for your membership fee or complete the credit card payment slip. Cheques should be made payable to Exercise & Sports Science Australia.

If paying by credit card, please ensure that the expiry date of the card is valid for at least 60 days from the date you submit your application. Please note: all credit card payments will incur a merchant fee of 1.5% of the payment total.

Page 3 - Personal declaration

Please ensure that you sign both declarations.

Page 3 - University qualifications achieved

Please ensure you provide details of tertiary studies that you have completed or are currently undertaking**.**

Attach a certified copy of your transcript or graduation certificate. This must be a transcript and clearly state that the qualification has been “awarded” or “conferred.” Please do not submit original copies of your academic transcript as these will not be returned to you.

Academic transcript

Attach a certified copy of your transcript/s. This must be a transcript and clearly state that the qualification has been “awarded” or “conferred.” Please do not submit original copies of your academic transcript as these will not be returned to you.

Page 4 - Statutory declaration

Sign the statutory declaration and have a witness sign. Click here for the full list of people authorised to witness a statutory declaration.

APPENDICES

Appendix 1 - People authorised to witness a statutory declaration

A statutory declaration under the Statutory Declarations Act 1959 may be made before–

1. a person who is currently licensed or registered under a law to practise in one of the following occupations: Chiropractor Dentist Legal practitioner Medical practitioner Nurse Optometrist

Patent attorney Pharmacist Physiotherapist Psychologist Trade marks attorney Veterinary surgeon

2. a person who is enrolled on the roll of the Supreme Court of a State or Territory, or the High Court of Australia, as a legal practitioner (however described); or3. a person who is in the following list:

Agent of the Australian Postal Corporation who is in charge of an office supplying postal services to the public

Australian Consular Officer or Australian Diplomatic Officer (within the meaning of the Consular Fees Act 1955)

Bailiff

Bank officer with 5 or more continuous years of service

Building society officer with 5 or more years of continuous service

Chief executive officer of a Commonwealth court

Clerk of a court

Commissioner for Affidavits

Commissioner for Declarations

Credit union officer with 5 or more years of continuous service

Employee of the Australian Trade Commission who is:

(a) in a country or place outside Australia; and

(b) authorised under paragraph 3 (d) of the Consular Fees Act 1955; and

(c) exercising his or her function in that place

Employee of the Commonwealth who is:

(a) in a country or place outside Australia; and

(b) authorised under paragraph 3 (c) of the Consular Fees Act 1955; and

(c) exercising his or her function in that place

Fellow of the National Tax Accountants' Association

Finance company officer with 5 or more years of continuous service

Holder of a statutory office not specified in another item in this list

Judge of a court

Justice of the Peace

Magistrate

Marriage celebrant registered under Subdivision C of Division 1 of Part IV of the Marriage Act 1961

Master of a court

Member of Chartered Secretaries Australia

Member of Engineers Australia, other than at the grade of student

Member of the Association of Taxation and Management Accountants

Member of the Australian Defence Force who is:

(a) an officer; or

(b) a non-commissioned officer within the meaning of the Defence Force Discipline Act 1982 with 5 or more years of continuous service; or

(c) a warrant officer within the meaning of that Act

Member of the Institute of Chartered Accountants in Australia, the Australian Society of Certified Practising Accountants or the National Institute of Accountants

Member of:

(a) the Parliament of the Commonwealth; or

(b) the Parliament of a State; or

(c) a Territory legislature; or

(d) a local government authority of a State or Territory

Minister of religion registered under Subdivision A of Division 1 of Part IV of the Marriage Act 1961

Notary public

Permanent employee of the Australian Postal Corporation with 5 or more years of continuous service who is employed in an office supplying postal services to the public

Permanent employee of:

(a) the Commonwealth or a Commonwealth authority; or

(b) a State or Territory or a State or Territory authority; or

(c) a local government authority;

with 5 or more years of continuous service who is not specified in another item in this list

Person before whom a statutory declaration may be made under the law of the State or Territory in which the declaration is made

Police officer

Registrar, or Deputy Registrar, of a court

Senior Executive Service employee of:

(a) the Commonwealth or a Commonwealth authority; or

(b) a State or Territory or a State or Territory authority

Sheriff

Sheriff's officer

Teacher employed on a full-time basis at a school or tertiary education institution

Appendix 2 - Example of a completed statutory declaration

Commonwealth of Australia
STATUTORY DECLARATION
Statutory Declarations Act 1959

1 Insert the name, address and occupation of person making the declaration

I,[1] **John Recent Graduate** (name) , of
12 Greenway Drive, Hamilton, QLD (address)
And of **Personal Trainer** (occupation)

make the following declaration under the *Statutory Declarations Act 1959:*

2 Set out matter declared to in numbered paragraphs

[2] "The attached documentation accurately indicates how the criteria for necessary and sufficient knowledge, skills and competencies are met in order to fulfil application requirements for exercise science (full) membership with Exercise & Sports Science Australia".

I understand that a person who intentionally makes a false statement in a statutory declaration is guilty of an offence under section 11 of the *Statutory Declarations Act 1959*, and I believe that the statements in this declaration are true in every particular.

3 Signature of person making the declaration

[3] John R Graduate

4 Place
5 Day
6 Month and year

Declared at [4] **University of Brisbane** on [5] **7th** of [6] **May 2013**

Before me,

7 Signature of person before whom the declaration is made

[7] Jane Green

8 Full name, qualification and address of person before whom the declaration is made (in printed letters)

[8]
(name) **Jane Green**
(qualification) **PhD - Full time Tertiary Educator**
of (address) **1 University Drive, Brisbane, QLD 4000**

Note 1 A person who intentionally makes a false statement in a statutory declaration is guilty of an offence, the punishment for which is imprisonment for a term of 4 years — see section 11 of the *Statutory Declarations Act 1959*.

Note 2 Chapter 2 of the *Criminal Code* applies to all offences against the *Statutory Declarations Act 1959* — see section 5A of the *Statutory Declarations Act 1959*.

Appendix 3 - Exercise science/graduate entry membership criteria

Area 1: Exercise physiology

Understand the physiological responses to exercise and training and know how to use this knowledge to develop effective programs that encourage individuals to incorporate regular physical activity into a healthy lifestyle.

Knowledge

1.1 Describe the acute cardiovascular and respiratory responses to exercise of increasing intensity, including normal and abnormal responses of heart rate, stroke volume, cardiac output, arteriovenous oxygen difference, pulmonary ventilation, tidal volume, respiratory rate, and systolic and diastolic blood pressure.

1.2 Describe the effects of different types of exercise training on the cardiovascular and respiratory responses listed above.

1.3 Describe the basic anatomy and functioning of the heart related to cardiac output and blood flow, cardiac pathways of nerve conduction, and electrical activity.

1.4 Describe the macroscopic and molecular structure of muscle tissue, including the mechanisms and metabolic requirements of muscle contraction.

1.5 Describe the physiological and metabolic characteristics of human skeletal muscle fibre types.

1.6 Describe the biochemical pathways by which fat, carbohydrate and proteins substrates are catabolised to produce energy during exercise of varying intensity and duration.

1.7 Explain the regulation of energy metabolism in skeletal and cardiac muscle during and after exercise.

1.8 Describe the relative contributions of aerobic and anaerobic respiration during exercise of varying intensity, including the metabolic and physiological mechanisms related to the concepts of lactate, ventilatory and anaerobic thresholds.

1.9 Define the metabolic, hormonal, physiological and neural factors limiting exercise capacity during activity of varying form (ie endurance, resistance and anaerobic), intensity and duration, and their inter-relationships.

1.10 Describe the acute metabolic, hormonal, muscular (skeletal and cardiac) and neural responses to exercise of varying form, intensity and duration.

1.11 Describe the chronic metabolic, hormonal, muscular (skeletal and cardiac) and neural adaptations to exercise of varying form, intensity and duration.

1.12 Explain how the metabolic, hormonal, muscular (skeletal and cardiac) and neural adaptations that occur in response to regular exercise affect health-related factors, such as risk factors for cardiovascular disease, non-insulin dependent diabetes mellitus, cancer and osteoporosis.

1.13 Describe the physiological principles and biochemical pathways related to muscular fatigue and muscle soreness during and after exercise.

1.14 Describe the principles of overload, frequency, duration and intensity related to endurance and resistance exercise training.

1.15 Explain the physiological and metabolic responses to detraining.

1.16 Describe the signs, causes and contributing factors related to overtraining syndrome.

1.17 Describe the positive and negative effects of various ergogenic aids on exercise performance and general health, including the effects of creatine, bicarbonate, glycerol loading, anabolic steroids, autologous blood transfusion ('blood doping'), caffeine and exogenously administered amino acids, erythropoietin, and growth hormone.

1.18 Describe the physiological mechanisms explaining gender differences in exercise responses, adaptations and performance.

1.19 Explain the physiological training responses of the female exerciser, specifically as related to reproductive function and pregnancy and the effect of menstrual cycle phase on sport performance.

1.20 Describe the physiological mechanisms related to thermoregulation during exercise, and the physiological adaptations that occur as a consequence of chronic hot and cold exposure.

1.21 Describe the regulation of fluid homeostasis during exercise and optimal methods for fluid replacement before, during and after exercise.

1.22 Describe the physiological, metabolic and biochemical responses to actual or simulated altitude and implications for exercise performance and training at altitude.

1.23 Describe the acute and chronic effects of exercise on the immune system.

1.24 Describe how nutrition can influence exercise performance, recovery and physiological adaptations.

Skills

1.25 Demonstrate the ability to administer and interpret results from basic physiological tests of exercise capacity/fitness, including assessment of VO2 max; anaerobic threshold submaximal estimation of VO2 max; anaerobic exercise capacity; and muscular strength, power, endurance and flexibility.

1.26 Demonstrate an ability to calculate energy expenditure of various exercise, sporting and occupational tasks, including the issue of economy of movement.

1.27 Demonstrate an ability to calculate age-predicted maximal heart rate (APMHR), heart rate reserve, and target heart rate ranges using APMHR and heart rate reserve methods, and describe limitations of the use of heart rate measures of exercise intensity.

1.28 Demonstrate an ability to administer and interpret basic lung function tests (vital capacity, FEV1, FEV1%, PEFR).

1.29 Demonstrate an ability to administer standard exercise field tests, such as sprints, shuttle runs, and other sport-specific tests.

Area 2: Biomechanics and functional anatomy

Have knowledge of human anatomy and biomechanics to devise safe and effective fitness programs, improve athletes' performance, recognise and correct improper technique during physical activity, prevent injuries and regain physical fitness after injury.

Knowledge

2.1 Describe the basic structure of bone, skeletal muscle and connective tissues.

2.2 Describe the basic structures of cardiovascular, nervous and respiratory systems.

2.3 Describe the major bones, muscle groups and tendons involved in gross human movement.

2.4 Describe the different types of joints in the body, and factors that determine range of motion in diarthrodial joints.

2.5 Describe the actions of the major skeletal muscle groups.

2.6 Describe movement of the trunk and extremities in the three planes: sagittal, frontal and horizontal.

2.7 Be familiar with the SI system of units and use appropriate units to quantify biomechanical parameters.

2.8 Explain the relationships between angular and linear displacement, velocity and acceleration.

2.9 Identify and describe the effects of factors governing projectile trajectory.

2.10 Distinguish between average and instantaneous quantities and identify circumstances under which each is a quantity of interest.

2.11 Describe and distinguish angular motion from rectilinear and curvilinear motion.

2.12 Explain the terms 'absolute' and 'relative' angles.

2.13 Describe Newton's laws of motion and gravitation and describe illustrations of the laws.

2.14 Explain what factors affect friction and discuss the role of friction in daily activities and sports.

2.15 Explain the terms 'impulse' and 'momentum' and the relationships between them.

2.16 Explain what factors govern the outcome of a collision between two bodies.

2.17 Describe the inter-relationships among mechanical work, power, and energy.

2.18 Explain the concept of leverage within the human body and describe the mechanical advantages associated with different types of levers.

2.19 Explain the term 'centre of gravity' and describe the significance of centre of gravity location in the human body.

2.20 Describe the relationship between factors such as centre of gravity, base of support, balance and stability.

2.21 Describe the term 'torque', explain the methods used to quantify resultant torques, and identify the factors that affect resultant joint torques.

2.22 Describe the angular analogues of mass, force, momentum and impulse.

2.23 Explain the mechanisms that occur when changes in the configuration of a rotating airborne body can produce changes in the body's angular velocity.

2.24 Describe the angular analogues of Newton's Laws of motion.

2.25 Explain the term 'centripetal force'.

2.26 Explain the ways in which the composition and flow characteristics of a fluid affect fluid forces.

2.27 Explain the term 'buoyancy' and discuss the variables that determine whether a human body will float.

2.28 Explain the term 'drag', identify the components of drag and discuss the factors that affect the magnitude of each component.

2.29 Explain the term 'lift' and explain the ways in which it can be generated.

2.30 Explain the work–energy relationship.

2.31 Explain the different methods used to determine body segment parameters for calculating centre of mass.

2.32 Describe the patterns of temporal, kinematic and kinetic variables that are commonly assessed by clinical gait analyses.

2.33 Describe the patterns of muscle action observed for normal and pathological gait patterns.

2.34 Describe the stages in the normative development of gait and give approximate ages at which they usually occur.

2.35 Describe the major changes in gait patterns that occur in the elderly and in those with common pathological conditions.

2.36 Explain how muscular weakness, fatigue and/or neurological disorders may affect the biomechanics of movement.

2.37 Describe how materials and structures respond to loading (compression, tension, bending, shear and torsion), including uniaxial and multi-axial loads.

2.38 Explain the terms 'stress' and 'strain', 'modulus of elasticity' and 'fracture toughness'.

2.39 Describe the relationships between tissue properties and force, and impulse and energy.

2.40 Describe how the biomechanical properties of tissues and structures change with adaptations to load, disuse, overuse, nutrition, aging and other factors.

2.41 Describe how various intrinsic and extrinsic factors interact and contribute to injuries.

2.42 Describe how tissues respond to injury via inflammation, repair and remodelling processes.

Skills

2.43 Demonstrate an ability to analyse common exercise movements according to biomechanical principles and identify muscle groups involved in each.

2.44 Demonstrate an ability to collect kinematic data.

2.45 Demonstrate an ability to calculate velocity and acceleration using the first central difference method.

2.46 Demonstrate an ability to calculate the area under a parameter–time curve.

2.47 Demonstrate knowledge of the three equations of constant acceleration.

2.48 Demonstrate the ability to solve quantitative problems involving angular kinematic quantities, and the relationships between angular and linear kinematic quantities.

2.49 Demonstrate the ability to represent the external forces acting on the human body by way of a free body diagram.

2.50 Demonstrate the ability to calculate the centre of mass for both an individual segment and the entire body from two-dimensional kinematic data.

2.51 Demonstrate the ability to solve quantitative problems related to kinetic concepts.

2.52 Demonstrate the ability to solve quantitative problems relating to the factors that cause or modify angular motion.

2.53 Demonstrate the ability to quantitatively analyse gait using basic temporal, kinematic and kinetic procedures.

2.54 Demonstrate the ability to use basic isokinetic dynamometer procedures for assessing and quantifying musculoskeletal function.

2.55 Demonstrate the ability to develop appropriate movement measures, including the interfacing of various monitoring devices to assess the performance of any specific movement pattern.

2.56 Using biomechanical principles, demonstrate the ability to identify movement patterns and potential risks of injury associated with common exercise equipment, such as resistance equipment (free, pin and hydraulic weights), stationary bicycles, stair-climbing machines and rowing machines.

2.57 Demonstrate the ability to measure and analyse the injury mechanisms associated with particular types of tissue injury.

2.58 Demonstrate the ability to select appropriate methods to control and modify inflammatory, reparative and remodelling phases of tissue responses to injury.

2.59 Demonstrate the ability to evaluate the rate of progress and efficacy of treatments

Area 3: Exercise behaviour/exercise and sports psychology

An understanding of the many physiological, psychological, social and environmental factors influencing participation and adherence to a physically active lifestyle.

Knowledge

3.1 Describe the factors that influence and predict exercise adoption and/or involvement in physical activity.

3.2 Describe the factors that influence and predict exercise adherence.

3.3 Describe the research literature on the theories related to improving exercise adherence and sustaining a physically active lifestyle.

3.4 Describe the research literature on effective strategies to increase exercise adoption and adherence.

3.5 Describe the research literature on positive and negative exercise addiction.

3.6 Describe the evidence related to exercise and mental wellbeing of individuals and groups.

Skills

3.7 Demonstrate an ability to use basic counselling and communication skills to motivate individuals to adopt and adhere to an exercise and physical activity program.

3.8 Demonstrate an ability to use behavioural modification strategies to increase exercise adherence throughout the lifespan.

3.9 Demonstrate an ability to recognise when and how to refer a client for further professional intervention and/or counselling.

Area 4: Motor control/motor learning/skill acquisition

Understand movement control, movement learning, movement development and movement disorders.

Knowledge

Movement control

The knowledge base in this area includes understanding the neural, physiological and cognitive bases for controlling movement. This unit contains the foundation knowledge upon which the movement learning, development and disorder areas are based.

4.1 Describe the principles of action potentials and neural transmission.

4.2 Describe the major divisions of the central and peripheral nervous systems.

4.3 Describe the major efferent and afferent pathways that connect the central and peripheral nervous system.

4.4 Describe the innervation of muscles (efferent and afferent nerves).

4.5 Describe the organisation of muscles based on motor units and fibre type.

4.6 Describe the principles of muscle recruitment — Henneman's size principle.

4.7 Describe to the factors that determine the mechanical outcomes of muscle activation (eg muscle length, velocity of contraction, contribution of passive elements, muscle history and rate of neural activation).

4.8 Explain the relationship between muscle contraction, force, moment arm and joint torque.

4.9 Describe the patterns of muscle action observed between agonist and antagonist muscle groups during slow and fast movements.

4.10 Explain how uni and biarticular muscles are used to control movement.

4.11 Explain the terms 'proprioception' and 'kinaesthesis'.

4.12 Describe the major somatosensory receptors for position and movement, the information they convey, and the major pathways that convey this information to the central nervous system.

4.13 Describe the vestibular apparatus and the information it conveys with respect to orientation and balance.

4.14 Describe the principles of posture and balance control.

4.15 Describe the organisation and function of the spinal cord. Use examples of reflexes (knee jerk, flexor withdrawal, cross-extensor reflect) to illustrate excitatory and inhibitory neural connections, and the function of interneurons.

4.16 Describe the organisation and function of the somatosensory and motor cortices.

4.17. Describe the major structural characteristics and functional roles of the cerebellum, basal ganglia and the brain stem in movement control.

4.18 Describe the visual apparatus and neural pathways.

4.19 Describe the major types of eye movements and the control of gaze including the vestibular ocular reflex.

4.20 Describe the neural and behavioural organisation of visually guided reaching movements; that is, how visual information is processed, how a movement is initiated, and how the movement is guided to its target.

4.21 Describe the distinction between open and closed-loop control models.

4.22 Describe and contrast the major theories and laws for simple movements (eg Fitts' law).

4.23 Describe reaction time processes and the informational and situational factors that determine reaction time.

4.24 Describe the neural organisation of locomotion. Include central pattern generators, brainstem areas and spinal cord organisation.

4.25 Explain what is meant by the degrees of freedom problem and the organisational principles of synergies or coordinate of structures.

Skills

4.26 Demonstrate an ability to use electromyographic procedures for assessing and quantifying muscle function.

4.27 Demonstrate an ability to measure reaction time tests.

4.28 Demonstrate an ability to evaluate posture and balance control.

The knowledge base in this area includes understanding the neural, physiological and cognitive changes that underpin the acquisition of movement skills.

Movement learning

Knowledge

4.29 Describe how movement outcomes are measured. Use spatial and temporal error measures.

4.30 Describe performance curves and their limitations. Include ceiling and floor effects.

4.31 Describe experimental transfer designs and how they are used to assess learning.

4.32 Describe warm-up decrement.

4.33 Describe intra and inter-individual variability of performance.

4.34 Describe the types of learning (eg visual, auditory, tactile), providing examples from movement skill acquisition (eg procedural versus declarative; implicit versus explicit).

4.35 Describe the major processes underlying the short and long-term retention of movement information.

4.36 Describe the cues for the recall and recognition of movement (eg context specificity, distance/location, vision/kinaesthesis).

4.37 Describe characteristics of the major stages that occur when movement skills are learnt.

4.38 Describe changes in attentional processes that occur when movement skills are learnt. Use examples of performance on secondary tasks.

4.39 Describe the perceptual changes that occur with skill learning by contrasting the perceptual skills and strategies of expert and novice performers.

4.40 Describe the decision-making changes that occur with skill learning by contrasting the decision-making skills and strategies of expert and novice performers.

4.41 Describe the electromyographic and kinematic changes that occur with skill acquisition.

4.42 Describe and contrast the principles of specificity and of transfer of movement learning.

4.43 Describe different types of feedback and their impact on movement learning.

4.44 Describe different types of practice (massed versus distributed; blocked versus random; constant versus variable) and their impact on learning.

4.45 Describe different methods of instruction that may be used when teaching motor skills (eg modelling, guidance, trial and error).

Skills

4.46 Demonstrate an ability to develop appropriate movement outcome measures to assess performance on any specific movement skill.

4.47 Demonstrate an ability to identify the perceptual, decision-making and motor responses required for a range of motor activities.

4.48 Demonstrate an awareness of methodologies that may be used to measure individual differences in perceiving, deciding and executing, with respect to motor skills.

4.49 Demonstrate an ability how a dual-task methodology could be used to examine the automaticity of skill learning.

4.50 Demonstrate the ability to structure training or practice sessions to maximise learning.

Movement development

4.51 Describe the general cephalocaudal and proximodistal principles of development.

4.52 Describe the notions of motor milestones and critical periods.

9.53 Describe the ages and stages involved in the normative development of fundamental motor skills, such as running and throwing.

4.54 Describe the major events in the development of the visual and kinesthetic system.

4.55 Describe primitive, postural and locomotor reflexes.

4.56 Describe the major developmental changes that occur in perception, decision-making and movement execution across the lifespan.

4.57 Describe the major changes in neural control that occur in the elderly.

4.58 Describe the major changes in information processing that occur in the elderly.

Movement disorders

4.59 Describe the changes in movement patterns and neural activity that accompany fatigue.

4.60 Describe changes in kinaesthetic sensitivity that can accompany soft tissue injuries.

4.61 Describe motor disorders and their neural origin; for example, apraxia, dysarthria, aphasia, dysmetria, ataxia and dyskinesia.

4.62 Describe the motor deficits that accompany common disorders of the somatosensory system, basal ganglia, cerebellum, and motor cortex (eg developmental coordination disorder, cerebral palsy, Parkinson's disease, stroke, spinal cord and acquired brain injury).

Area 5: Human growth, development and ageing

Understand how age, gender, culture, socioeconomic status and developmental stages may each influence the individual's exercise capacity and motivation to participate in regular physical activity; and how physical activity, in turn, may influence growth and development.

Knowledge

5.1 Describe the concept and measures of growth, maturation and development.

5.2 Describe changes in the neuromuscular, skeletal, cardio respiratory and endocrine systems that occur throughout the lifespan.

5.3 Describe changes in endurance and anaerobic exercise capacity, coordination and muscular strength, endurance and power, and flexibility that occur throughout the lifespan.

5.4 Describe common musculoskeletal and cardiovascular problems that occur with increasing age and their effects on exercise capacity.

5.5 Describe age-related changes in the acute responses to endurance and resistance exercise.

5.6 Explain how adaptations to various training programs may change throughout the lifespan; for example, the effects of resistance training and aerobic-based training on components of body composition (muscle, bone and fat).

5.7 Explain the extent to which regular exercise throughout the lifespan, or exercise at given points during the lifecycle, may modulate changes in the cardiovascular, musculoskeletal, neuromuscular and endocrine systems seen in the sedentary ageing population.

5.8 Describe the maternal changes of pregnancy and the effects of exercise on the mother and foetus.

Skills

5.9 Demonstrate an ability to select appropriate fitness tests or modify standard protocols to accommodate children, pregnant women and older adults.

5.10 Demonstrate an ability to select appropriate fitness tests or modify standard protocols to accommodate specific musculoskeletal problems that occur in older individuals.

5.11 Demonstrate an ability to promote and prescribe safe and appropriate physical activity and training (endurance and resistance) programs for children and adolescents.

5.12 Demonstrate an ability to prescribe safe and appropriate training programs for the older individual (with and without musculoskeletal disorders) so that functional independence and wellbeing may be maintained.

Area 6: Exercise, health and disease

Understand the relationships between physical activity, sedentary behaviours and lifestyle-related diseases, such as cardiovascular disease, obesity, diabetes mellitus, asthma, osteoporosis and osteoarthritis.

Knowledge

6.1 Describe risk factors for lifestyle-related diseases, identifying which are primary, secondary, modifiable and non-modifiable.

6.2 Describe epidemiological evidence supporting the roles for exercise and physical activity participation in the prevention of lifestyle-related diseases.

6.3 Describe the specific effects of exercise and physical activity on risk factors for lifestyle-related diseases.

6.4 Describe the dose–response relationships for exercise and physical activity interventions on lifestyle-related outcomes.

6.5 Describe recommended levels for indicators of health, such as blood lipids, blood pressure, blood glucose and body composition.

6.6 Describe the pathophysiological process of atherosclerosis, and possible mechanisms by which exercise may intervene in this process.

6.7 Describe the negative impacts of sedentary behaviours on risk factors for lifestyle-related diseases.

Skills

6.8 Demonstrate an ability to identify risk factors for metabolic, respiratory, cardiovascular and musculoskeletal diseases that require consultation with a medical practitioner before participating in, or changing, a physical activity program.

6.9 Demonstrate an ability to apply and interpret screening tools to determine the suitability of exercise and physical activity interventions for individuals with lifestyle-related diseases.

Area 7: Health, fitness and performance assessment

Have the ability to perform pre-participation screening, risk appraisal, and exercise and performance assessments.

Knowledge

7.1 Use published tools to determine whether a given individual requires medical examination before, or medical supervision during, fitness testing.

7.2 Describe absolute and relative contraindications to fitness testing or participation in exercise or physical activity.

7.3 Describe criteria to terminate commonly used fitness tests.

7.4 Explain how fitness test results may be influenced by factors such as subject anxiety, ambient temperature, dehydration or prior exercise.

7.5 Describe the assumptions and limitations of body composition assessment, fitness and performance testing.

7.6 Describe the physiological bases for tests of VO2 max and submaximal estimation of VO2 max, body composition, muscular strength, endurance and flexibility.

7.7 Describe the effects of commonly prescribed medication that may influence the heart rate, blood pressure and electrocardiographic responses to exercise.

7.8 Explain the mechanisms underlying abnormal electrocardiographic responses to exercise of varying duration and intensity.

Skills

7.9 Demonstrate an ability to obtain pre-participation screening information and appraise risk using this information.

7.10 Demonstrate a knowledge of, and ability to use, a range of body composition measures to service athletes, apparently healthy and obese individuals.

7.11 Demonstrate an ability to administer and interpret basic physiological tests of exercise capacity and fitness, including assessment of VO2 max thresholds; submaximal estimations of VO2 max; high-intensity exercise capacity; and muscular strength, power, endurance and flexibility.

7.12 Demonstrate an ability to interpret results of each test listed above, comparing results with established norms and reporting these values to the individual tested.

7.13 Demonstrate an ability to calibrate equipment used in exercise physiology, such as gas and lactate analysers and various ergometers.

7.14 Demonstrate an ability to discuss accuracy and limitations of instrumentation in the interpretation of test results.

7.15 Demonstrate an ability to measure heart rate, blood pressure and rating of perceived exertion before, during, and after submaximal fitness tests.

7.16 Demonstrate an ability to use information from fitness tests for designing exercise interventions for a given individual.

7.17 Modify standard or adopt appropriate fitness tests for special groups, such as children, older adults, pregnant women, athletes, or those with diseases or conditions such as osteoarthritis and asthma.

7.18 Demonstrate an ability to obtain a 12-lead ECG recording at rest and during exercise up to maximal, and calculate heart rate from the ECG.

Area 8: Exercise programming and prescription

Have the ability to develop individualised exercise prescriptions.

Knowledge

8.1 Describe intensity, duration, frequency and type of exercise recommended for health-related benefits in apparently healthy and low-risk individuals.

8.2 Describe the relationship between exercise heart rate, work rate and rating of perceived exertion.

8.3 Describe precautions, modifications and other factors to consider when prescribing exercise programs for symptomatic individuals.

8.4 Describe the different components of, and appropriate exercises to be included in, an exercise program (ie warm-up, conditioning and cool-down phases).

8.5 Explain the different stages of an exercise program (ie initial, improvement and maintenance).

8.6 Describe signs of excessive exercise strain during exercise, which may indicate the need for:

(1) a change in the exercise prescription

(2) stopping a given individual during an exercise program.

8.7 Describe common errors in body alignment and movement mechanics during exercise.

8.8 Explain the role of muscular flexibility exercises in exercise prescription.

8.9 Describe the principles of resistance training.

8.10 Using the scientific literature to demonstrate an understanding of current theories relating to endurance and resistance training.

8.11 Describe the advantages and disadvantages of various types of equipment used in circuit and resistance training.

8.12 Describe appropriate work–rest intervals for circuit and interval training programs, emphasising:

(1) aerobic conditioning

(2) muscular strength and power

(3) muscular endurance.

Skills

8.13 Demonstrate an ability to recognise when and where to refer client for further professional advice.

8.14 Demonstrate an ability to use visual analogue scales (eg rating of perceived exercise) to gauge exercise intensity.

8.15 Demonstrate an ability to calculate target heart rate using:

(1) heart rate reserve

(2) simple percentage of age-predicted maximum heart rate.

8.16 Demonstrate an ability to monitor heart rate and blood pressure before, during and following exercise.

8.17 Demonstrate an ability to calculate and set work rate on a Monark bike during exercise.

8.18 Demonstrate an ability to write an exercise prescription for apparently healthy and low-risk individual for:

(1) loss of excessive body fat

(2) increasing endurance exercise capacity

(3) increasing muscular strength.

8.19 Demonstrate an ability to design and implement a group exercise program in community and gymnasium contexts.

8.20 Demonstrate an ability to design and implement a group exercise program that takes account of various fitness levels.

8.21 Demonstrate an ability to design and implement a group exercise program to improve flexibility.

8.22 Demonstrate an ability to identify improper and unsafe exercises, and prescribe appropriate substitutions for these exercises.

Area 9: Nutrition, health and body composition

Have the ability to combine general nutritional principles with exercise advice to increase the effectiveness of their health and wellbeing interventions.

Knowledge

9.1 Describe the dietary guidelines and the recommended servings of the core food groups recommended by the National Health and Medical Research Council.

9.2 Describe the physiological functions of vitamins and minerals.

9.3 Explain the relationship between energy balance and control of body composition.

9.4 Describe the aetiology of obesity.

9.5 Define obesity and its comorbidities.

9.6 Describe the research literature on the effectiveness of exercise alone, diet alone, and diet and exercise combination in controlling body mass and fat levels and distribution.

9.7 Describe the recommended rate of loss of body mass and understand the potential risks of inappropriate diets and rapid weight loss.

9.8 Explain the relationship between body mass, body fat and fat distribution and risk factors for certain diseases, such as cardiovascular disease, cancer, osteoarthritis, non-insulin dependent diabetes mellitus, hypertension, and hyperlipidemia.

9.9 Describe the blood lipoprotein fractions and the research literature related to the role of diet and exercise in controlling blood lipids.

9.10 Describe the research literature related to the role of diet and exercise in the control of blood pressure, blood glucose and insulin resistance.

9.11 Explain the potential risks and benefits of nutrition supplements and ergogenic aids for athletes.

9.12 Describe the use of appropriate beverages for fluid and carbohydrate maintenance before, during and following exercise.

9.13 Describe the strengths, weaknesses and limitations of commonly used methods for measuring and analysing dietary intake.

9.14 Describe diet-related situations in which referral to an accredited practicing dietician (APD) or medical practitioner is required.

9.15 Be familiar with the *Joint Position Statement* of ESSA and Dieticians Association of Australia in the context of referrals to an APD.

Skills

9.16 Demonstrate understanding of how individual daily energy requirements can be approximated, and the limitations of approximation methods.

9.17 Demonstrate an ability to use public health recommendations (eg dietary guidelines) for Australian adults to provide general nutrition advice to promote achieving or maintaining a healthy body weight.

9.18 Demonstrate an understanding of the nutritional, health and psychological risks of common fad or popular diets.

9.19 Demonstrate an ability to calculate body mass index (BMI) and measure waist circumference, and relate these to recommended values for men and women.

9.20 Demonstrate an ability to use BMI, waist circumference, body composition estimates and other indices to determine an appropriate rate of loss of body mass or fat for a given individual.

9.21 Demonstrate an ability to prescribe exercise programs to reduce body mass and fat levels.

9.22 Demonstrate an ability to prescribe resistance exercise programs used to increase resting metabolic rate.

9.23 Demonstrate an understanding of behavioural modification and other strategies to help clients to incorporate and adhere to appropriate strategies that support achieving or maintaining a healthy body mass.

9.24 Demonstrate an ability to conduct anthropometric profiling.

9.25 Demonstrate an understanding of the recommended public health ranges for weight or body fat levels and the associated risks and benefits of diet and weight-loss programs commonly advertised to the community.

Return to: University Study Table

Appendix 4 - Example of a completed university study table

Study Area	Please detail the institution where the study was completed together with the name and code of the unit of study (as it appears on the attached academic transcript/s)	
A. CORE AREAS OF STUDY	Unit Code	Please list all subjects needed to meet the criteria listed in the Help document
Structural and functional anatomy	ANAT101 ANAT102	Anatomy Functional anatomy
Human physiology	PHYS101	Physiology
Psychology/psychosocial/behavioural studies	PSYCH101	General psychology
Research methods and statistics	STAT101	Research methods for health science
B. CORE SUB-DISCIPLINE AREAS OF STUDY		
Exercise physiology (Area 1 - criteria)	SPEX201	Exercise physiology 1
Biomechanics (Area 2 - criteria)	SPEX202	Biomechanics of movement 1
Sport and exercise psychology (Area 3 - criteria)	SPEX203	Exercise psychology 1
Motor control/motor learning/skill acquisition (Area 4 - criteria)	SPEX204	Motor control and learning 1
Advanced unit of study 1 [1]	SPEX301	Advanced exercise physiology Pre-requisite unit: SPEX201 - Ex Phys 1
Advanced unit of study 2 [1]	SPEX303	Motor control and learning 2 Pre-requisite unit: SPEX204 - Motor Control 1
C. ADDITIONAL AREAS OF STUDY		
Human growth, development and ageing (Area 5 - criteria)	BIOL101 SPEX205	Growth and development Exercise programming
Exercise, health and disease (Area 6 - criteria)	SPEX206	Exercise and lifestyle diseases
Health, fitness and performance assessment (Area 7 - criteria)	SPEX201 SPEX301 SPEX205	Exercise physiology 1 Advanced exercise physiology Exercise programming
Exercise programming and prescription (Area 8 - criteria)	SPEX205	Exercise programming
Nutrition, health and body composition (Area 9 - criteria)	NUTR100 ANAT102	Nutrition and performance Functional anatomy (Body composition)

[1.] Advanced unit of study – a unit of study that has one of the four core sub-discipline areas of study as a **pre-requisite unit of study**. It cannot be a co-requisite unit.

Appendix 5 - Accredited exercise physiologist application criteria

Section A: Generic criteria

1. Scope of practice

Knowledge

a. Knowledge of the professional roles available to the Accredited Exercise Physiologist (AEP) within the two broad categories:
    i. Chronic disease management (rehabilitation and secondary prevention)
    ii. Functional conditioning (incorporating both work conditioning and conditioning for activities of daily living (ADLs)
b. Understand the broad classifications of pathology in the context of the AEP
c. Knowledge of the understanding of the roles of other health practitioners in the context of clinical exercise practice

Application

d. Articulation of the scope of professional roles available to the AEP
e. Experience in referring to, and/or use of a referral letter from:
    i. An allied health professional
    ii. A medical practitioner

2. Compensation schemes: legislation, systems, policies and procedures
Knowledge

a. Awareness and understanding of national compensation schemes and legislation that includes clinical exercise practice
b. Knowledge of Workers Compensation and Compulsory Third Party (CTP) Legislation and Frameworks

Application

c. Capacity to deliver appropriate Workers Compensation and CTP services in the role of the:
    i. AEP
    ii. Case manager

3. Ethics

Knowledge

a. Knowledge of the ESSA Code of Professional Conduct and Ethical Practice

Application

b. Categorise professional behaviour according to the ESSA Ethics charter

4. Pathophysiology

Knowledge

a. Knowledge and understanding of pathological and pathophysiological bases of the AEP target pathologies, including diagnostic procedures
b. Knowledge and understanding of the stages of disease, risk factors, complications and co-morbidities that must be accounted for in exercise interventions

5. Medical and allied health management: effects on clinical status

Knowledge

a. Knowledge of the purpose, methods and typical clinical outcomes of common surgical, medical and allied health treatments for AEP target pathologies

Application

b. Access and use information on the effects of common surgical medical and allied health treatments on the clinical status of clients with AEP target pathologies

6. Surgical, medical and allied health interventions: effects on exercise capacity

Knowledge

a. Knowledge of the typical effects of common surgical, medical and allied health treatments on exercise responses for clients with AEP target pathologies

Application

b. Access and use information on the effects of common surgical, medical and allied health treatments on the expected acute and chronic exercise responses

7. Medications: effects on exercise responses

Knowledge

a. Knowledge of the mode of action and indications of medications commonly prescribed in AEP target pathologies
b. Knowledge of the effects of the following commonly prescribed medication classes on acute and chronic exercise responses:
    i. Cardiovascular: beta blockers, alpha blockers, angiotensin converting enzyme inhibitors (ACEI), calcium channel blockers, anti-anginal agents, cardiac glycosides (eg. Digoxin), diuretics, statins, anti-arrhythmic agents, anti-thrombogenic agents
    ii. Respiratory: relievers, symptom controllers, preventers and emergency medicine
    iii. Metabolic: hypoglycaemic agents, insulin: fast and slow acting, sugar to treat hypoglycaemia, agents to treat obesity. Include sulfonylureas, meglitinides, biguanides, thiazolidinediones, and alpha-glucoseidase inhibitors
    iv. Musculoskeletal: NSAIDs, corticosteroids and opiods
    v. Neurological / Neuromuscular: anti-spasm medications, psychotropic, anti-depressants

Application

c. Experience with details of clients' current medications, including:
    i. Accessing (eg MIMS) information on the actions of prescribed medications
    ii. Explaining to clients in plain language the purpose(s) of their prescribed medications
    iii. Explaining to clients the importance of compliance to prescribed medication regimes
    iv. Accessing and using information on medications with respect to the associated acute and chronic exercise responses

8. Exercise interventions: effects on clinical outcomes

Knowledge

a. Knowledge of the evidence with regard to mode of exercise, intensity, duration, frequency, volume and progression for AEP target pathologies

Application

b. Experience with the assessment of clinical outcomes following exercise interventions by:
    i. Accessing clinical data (eg request data from medical practitioners)
    ii. Interpreting clinical data (eg blood tests) with reference to the clinical literature
    iii. Measuring the clinical outcomes (eg blood pressure)

c. Use the above data to inform one's own practice

9. Risk factor stratification

Knowledge

a. Knowledge and understanding of typical risk factors (eg biological, socio-cultural, behavioural and environmental), alleviating factors and aggravating factors for AEP target pathologies, and co-morbidities

Application

b. Selection and application of appropriate instruments to assess the risk of exercise participation for clients with AEP target pathologies, and co-morbidities

10. Assessments of exercise capacity

Application

a. Experience with using appropriate (to the client and situation) exercise tests, including measurements and observations of aerobic power (predicted or direct VO_{2max} or VO_{2peak}), aerobic endurance, rest and exercise spirometry, muscle strength and endurance, ranges of motion, body composition, static and dynamic postures, core stability, balance, coordination, mobility, gait, movement patterns, functional capabilities, and activities of daily living.
b. Experience with the determination of safe (client-centred) exercise limits and effective ranges for exercise and physical activity.

11. Functional capacity, functional conditioning and occupational rehabilitation

Knowledge

a. Knowledge and understanding of the core principles of Occupational Rehabilitation
b. Knowledge and understanding of the ergonomic principles within workplace environments and how these functionally apply to the individual
c. Knowledge and understanding of the core principles of case management
d. Knowledge of Functional Capacity Evaluations (FCE) that are widely used and accepted in industry and professional practice
e. Knowledge and understanding of how to transfer FCEs into functional conditioning programs and strategies
f. Knowledge of the tests for activities of daily living (ADLs) that are widely used and accepted in professional practice
g. Basic understanding of the ergonomic principles within home environments

Application

h. Experience with:
    i. The design, processes and responsibilities in development and adherence to treatment plans
    ii. Conducting workplace ergonomic assessments/worksite visits in order to make functional modifications or recommend suitable duties relative to an individual's capacity and injuries/conditions
    iii. Providing concise, objective reports and return to work plans which meet the needs of all relevant parties e.g. employee, employer, medical/allied health professionals and insurer and relevant legislative requirements
    iv. Conduct functional capacity evaluations (both for individuals with injuries/conditions or for Pre-Employment Assessments)
    v. Transfer baseline functional capacity information into functional exercise programs and understand functional body mechanics as it pertains to manual handling in the workplace environment and safe ergonomic principles
    vi. Experience in the conduct of generic functional capacity /conditioning services
    vii. Activities of daily living (ADLs)
    viii. Designed, delivered and evaluated exercise programs to improve ADL capacities in people with AEP target pathologies
    ix. The ability to conduct ergonomic assessments within home environments

12. Monitoring

Application

a. The ability to monitor and interpret at rest, exercise and recovery:
    i. Self-report scales (eg RPE and fatigue, visual analogue scales [VAS], dyspnoea scales, pain, physical activity)
    ii. Heart rate, rhythm and oxygen saturation (eg palpation, heart rate monitor, ECG, pulse oximetry)
    iii. Blood pressure
    iv. Breathing (eg visual observations, spirometry)
    v. Balance and movement patterns (eg static and dynamic postures, coordination, mobility, gait)

13. Safety: precautions and contraindications

Knowledge

a. Knowledge of modes, intensities and volumes of exercise that may cause deterioration of clients (physical and/or cognitive) and/or adverse events

Application

b. Identification of modes, intensities and volumes of exercise that are contraindicated for clients with AEP target pathologies. These should be for acute (eg. Thermoregulation) and chronic (eg adverse remodelling of the heart in heart failure with excess loads) effects of exercise

14. Safety: signs and symptoms

Knowledge

a. Knowledge of adverse signs and symptoms that may arise during exercise or recovery for the list of AEP target pathologies
b. Knowledge of when to modify, stop or not start an exercise, test, exercise session or program in the event of the appearance of new or recurring adverse observations or measurements or new or recurring signs or symptoms

Application

c. Experience in monitoring signs and symptoms before, during and after exercise that may indicate important changes relating to an injury or disease status or progression
d. Confidence in dealing with clients (either via reassurance and/or referral) for whom a test, exercise session, or program is modified, stopped, or not started due to the presence of signs or symptoms or adverse observations or measurements

15. Design of clinical exercise interventions

Application

a. Experience in the design, implementation, evaluation, modification and advancement of individual exercises or exercise programs, accounting for:
    i. Presenting pathology and co-morbidities (may be extracted from referral)
    ii. Current treatment(s), including medical, pharmacological and allied health
    iii. Risk factors, aggravating factors, alleviating factors
    iv. Interpersonal communication
    v. Goals, likes and dislikes, barriers (eg socio-cultural, socio-economic factors, socio-psychological)
    vi. Subjective and objective measurements/observations
    vii. Current exercise and functional capacities
b. Exercise programs should account for mode, intensity, duration, frequency, volume and progression, and should reflect a concord between AEP and client

16. Exercise leadership

Application

a. Motivation and leadership of individuals and groups of clients with AEP target pathologies in exercise and physical activity programs; providing feedback to clients, including correcting poor or unsafe techniques

17. Interpersonal communication and behaviour change

Knowledge

a. Knowledge of basic lifestyle strategies, programs and resources, including government- and community-based population-wide strategies
b. Knowledge of nutrition at the level needed to provide basic lifestyle advice, with emphasis on AEP target pathologies
c. Knowledge and understanding of the psychology of living with chronic medical conditions, pain, anxiety, depression, bereavement
d. Knowledge of strategies to deal with clients who may be hostile, resistant, non-compliant, anxious, depressed, or psychotic
e. Knowledge and understanding of models of behaviour change
f. Knowledge of factors that affect long term exercise adherence and concordance, and socio-cultural factors that must be considered in the support of clients in their endeavours towards self-management of healthy lifestyle, exercise and physical activity

Application

g. Experience in the interview of clients in order to compile a relevant history beyond the referral and risk factor documentation, including: exercise and work histories, the client's perspectives on the cause(s) of disease/mechanisms of injury, co-morbidities, barriers to participation, pain, goals, likes and dislikes, opportunities
h. Provide assistance and guidance to clients and where appropriate referrers, to develop appropriate short, medium and long term goals, appropriate to medical, physical and psychosocial, functional and environmental influences
i. Experience in counselling and working with clients through behaviour change
j. Provision of counselling and support for clients in their development of self-management strategies to promote independence
k. Ability to explain, advise or provide information to assist clients' understanding of AEP target pathologies, risk factors and the relationship with exercise
l. Provision of basic education on AEP target pathologies or risk factors, and related benefits of exercise and healthy lifestyle

18. Communication

Knowledge

a. Knowledge of the challenges and opportunities for the delivery of culturally appropriate exercise and healthy lifestyle programs for communities and individuals from culturally and linguistically diverse backgrounds (CALDB)
b. Knowledge of the legal and ethical requirements regarding documentation and communication in allied health practice

Application

c. Communication (verbal, written, electronic) using brief and concise language, and in appropriate syntax (SOAP, lay, medical) for other AEPs, medical practitioners, other health professionals, compensable authorities/agents (eg insurers), and clients
d. The design and deliverance of culturally appropriate exercise and healthy lifestyle programs to CALDB communities and individuals. Communication must be sympathetic to socio-cultural diversity (eg CALDB clients or colleagues, and diversity/minority groups). Know when to work with an interpreter
e. Using SOAP notes, practice in clinical documentation, including the compilation of a client's file and clinical note taking

19. Evidence based practice

Knowledge

a. Awareness of evidence bases of the effects of exercise for people living with, or at risk of, AEP target pathologies.
b. Understanding of evidence based practice models of clinical decision making

Application

c. Experience in accessing, comprehending, critically analysing, collating and disseminating the clinical exercise scientific literature
d. Experience in making informed judgements of the claims made in the original research articles versus the strength of the evidence provided

Section B: Cardiopulmonary criteria

20. Assessments of exercise capacity in clients with cardiopulmonary conditions

Application

a. Understanding of safe exercise limits using thresholds that commonly arise in the exercise testing of people with cardiopulmonary conditions, including:
    i. Angina
    ii. Claudication
    iii. Dyspnoea
    iv. Light headedness/syncope

21. Assessments of lung function in clients with cardiopulmonary conditions

Knowledge

a. Basic knowledge of pulmonary rehabilitation

Application

b. Ability to recognise breathing limitations that impact on exercise capacity:
    i. Obstructive airway patterns
    ii. FVC, FEF_{peak}, FEV_1, predicted or measured MVV
    iii. V_E at peak exercise
    iv. Breathing reserve
    v. Exercise-induced asthma (EIA)
    vi. O_2 sat%
c. The design of an exercise intervention for clients with COPD

22. Safety: signs and symptoms

Knowledge

a. Knowledge of adverse signs and symptoms that may arise during exercise or recovery for the list of cardiopulmonary target pathologies

Application

b. Experience in recognising and taking appropriate action regarding:
    i. Vaso-vagal episodes
    ii. Hypotension/hypertension related to exertion
    iii. Ischaemia (angina, claudication)
    iv. Depleted breathing reserve
    v. General or localised fatigue
    vi. Cardiopulmonary arrest

23. Electrocardiography

Knowledge

a. Knowledge and understanding of the
   i. common aberrant rhythms and waveform morphologies
   ii. pathological correlates of the aberrant rhythms and waveform morphologies
   iii. red, amber and green flags in relation to aberrant rhythms and waveform morphologies

Application

b. Experience in:
   i. Setting up, monitoring and recording 12-lead ECGs at rest, exercise and recovery (esp. heart rate and rhythm)
   ii. Basic recognition of common aberrant rhythms and traces (see list below)
   iii. Confidence in rapidly responding to adverse ECG findings: red, amber and green flags in ECG

c. Applicant has practised basic recognition of the following aberrant rhythms and waveforms, and outline the course of action (continue with exercise = green flag; continue only after medical approval = amber flag; discontinue and refer = red flag):
   i. Ectopy: atrial, junctional and ventricular
   ii. Atrial fibrillation (AF)
   iii. Atrial flutter
   iv. Sinus block /arrest
   v. Electrolyte disturbances
   vi. Digitalis toxicity
   vii. Atrio-ventricular blocks (1º, 2º, 3º)
   viii. Bundle branch blocks
   ix. Axis deviations
   x. Real versus pseudo ST depression in exercise
   xi. Pre-excitation syndrome
   xii. Ventricular tachycardias
   xiii. Ventricular fibrillation (VF) and cardiac arrest
   xiv. Symptomatic brady-arrhythmias (eg vaso-vagal episodes)
   xv. Symptomatic tachy-arrhythmias

Section C: Metabolic criteria

24. Blood tests

Knowledge

a. Understand the purpose and methods of the following tests:
   i. Glucose tolerance test (GTT)
   ii. Random blood glucose (RBG)
   iii. Fasting blood glucose (FBG)
   iv. Glycosylated haemoglobin (HbA1c)
   v. Total cholesterol, HDL_{chol}, LDL_{chol}, triglycerides

Application

b. Applicant has experience with the interpretation of the following tests:
   i. Glucose tolerance test (GTT)
   ii. Random blood glucose (RBG)
   iii. Fasting blood glucose (FBG)
   iv. Glycosylated haemoglobin (HbA1c)
   v. Total cholesterol, HDL_{chol}, LDL_{chol}, triglycerides

25. Safety: signs and symptoms

Knowledge

a. Knowledge of adverse signs and symptoms that may arise during exercise or recovery for metabolic target pathologies

Application

b. Specifically, understand the issues surrounding glucose control before, during and following exercise in diabetics
c. Experience in recognising and taking appropriate action regarding:
    i. Hypoglycaemia
    ii. Hyperglycaemia
    iii. For both hypoglycaemia and hyperglycaemia, suitable advice for clients regarding glucose testing and control before, during and after exercise
    iv. Hypotension / hypertension related to exertion
    v. Ischaemia (angina, claudication)
    vi. Depleted breathing reserve
    vii. General or localised fatigue

Section D: Musculoskeletal criteria

26. Assessments of exercise capacity in clients with musculoskeletal conditions

Knowledge

a. Knowledge and understanding of applied movement analysis

Application

b. Experience in performing a movement and work task analysis in a clinically relevant time period.
c. Know how to adapt techniques based on the observations and measurements made above

27. Exercise interventions

Knowledge

a. An understanding of the loading characteristics of tissue, (eg bone, ligament, tendon, nerve, muscle), with and without pathology

Application

b. Experience in progressively varying tissue loading characteristics in response to a specific pathology, physically status or work demand task (including the ability to perform this experience in a clinically relevant stage of recovery).

28. Safety: Precautions and contraindications

Knowledge

a. An understanding of tissue mechanics to create a safe exercise environment

Application

b. Experience in developing loading strategies for tissue with and without specific pathology in a clinically relevant time period.

c. Experience with the recognition and appropriate action regarding:
    i. Acute musculoskeletal pain / injuries
    ii. Medical emergencies such as cauda equine syndrome

29. Safety: signs and symptoms

Knowledge

a. Knowledge of adverse signs and symptoms that may arise during exercise or recovery for the list of musculoskeletal target pathologies

Application

b. The capacity to recognise (during exercise and recovery) and take appropriate action regarding:
   i. New or worsening pain
   ii. New or worsening neurological deficit
   iii. Failure to achieve expected gains in exercise capacity

Section E: Neurological/neuromuscular criteria

30. Assessments of exercise capacity in clients with neurological/neuromuscular conditions

Application

a. Familiarity with using and interpreting various subjective and objective measures from the generic list (see criteria 12) as relevant to this category or when clinically appropriate

31. Safety: precautions and contraindications

Application

a. An ability to create an environment (including equipment modification) that is safe for a person with neurological pathology to exercise)

32. Safety: signs and symptoms

Knowledge

a. Knowledge of adverse signs and symptoms that may arise during exercise or recovery for the list of neurological / neuromuscular target pathologies

Application

b. Confidence to recognise and take appropriate action regarding common signs and symptoms associated with neurological / neuromuscular target pathologies (eg. Autonomic dysreflexia, hypotension, elevated core temperature).

33. Communication

Knowledge

a. Awareness of communication and other cognitive, emotional and social processes that could be affected by neurological / neuromuscular target pathologies

Application

b. Experience in modifying communication strategies in order to improve effectiveness

Section F: Other conditions

Mental health

34. Communication

Knowledge

a. Awareness of communication and other cognitive, emotional and social processes that could be affected by mental health disorders (eg bipolar disorders, schizophrenia, personality disorders, depression, mental retardation, Alzheimer's Disease, etc)

Application

b. Have an ability to modify communication strategies in order to improve effectiveness

Cancers

35. Medical and allied health management

Knowledge

a. Awareness of the issues concerning exercise:
   i. following chemotherapy, radiotherapy, surgery and other treatments
   ii. before blood tests
   iii. after prolonged bed rest
   iv. in conjunction with medications used to treat cancer patients

Appendix 6 - Logbook examples

SECTION I – Exercise Science Practicum/Work Experience Logbook					
Date	**# of Hours**	**Description of Services**	**Supervisor**	**Supervisor's Signature**	**Applicant's Signature**
2/3/12	2	Bootcamp Blitz - outdoor exercise session for 8 healthy adults. Clients performed circuit aerobic activities and resistance exercises with medicine balls and body weight. Varied agility course and leg exercise intensity from previous session.	L. Green	L. Green	G. Student
9/4/12 - 11/4/12	18	Talent Identification camp - group of 30 female soccer players age 16-19. My role involved testing players for height, weight, body composition, girth measurements, vertical jump, muscular strength and aerobic fitness (beep test). On the final day of the camp players participated in a series of games where my role was to conduct the warm-up and cool-down, fit GPS monitors, download the data and provide a report to the coaches.	B. Edwards	B. Edwards	G. Student
4/6/12- 9/11/12	46 2 x 1 hr sessions weekly	Fitness Nut - ongoing personal training client, male aged 29, nil health issues & exercise history, Initial assessment: body weight, girth measurements, sub-maximal bike test, abdominal strength, flexibility tests. Client rated poorly on all tests and was classed as overweight. Aims were to increase fitness and strength and decrease body weight to participate in a 10km run. Exercise sessions involved a mixture of aerobic and resistance exercises being progressively overloaded from previous session. Mode of exercise varied from bike to treadmill to maintain interest. On final assessment client's fitness had improved, body weight decreased and had completed a 10km run in 53 mins.	L. Green	L. Green	G. Student

SECTION I – Apparently Healthy Practicum/Work Experience Logbook						
Date	**# of Hours**	**Case Description**	**Description of Services**	**Supervisor**	**Supervisor's Signature**	**Applicant's Signature**
2/3/12	3	27 year old healthy female - wanting to tone up for wedding (Oasis Gym)	**Face to Face** - Initial medical and exercise history, goal setting, fitness assessment. Followed by initial exercise session familiarising client with equipment (2 hours) **Preparation** - Review exercise assessment results, write 6 month exercise plan, write next 2 exercise session plans (1 hr)	L. Green	L. Green	G. Student
10/4/12 - 11/4/12	14	Group of 24 male AFL players aged 17-32. (Hillwood Sharks Football Club)	**Face to Face** - Pre-season fitness camp - My role involved testing players for height, weight, body composition, agility, vertical jump, flexibility, muscular strength, muscular endurance and aerobic fitness (beep test) and ensuring appropriate warm-up and cool-down for activities. (10 hrs) **Preparation** - Collation of exercise test results, planning of pre-season training sessions, determine any specific needs identified from fitness test results and planning for injury prevention in conjunction with senior coach. (4 hours)	B. Edwards	B. Edwards	G. Student
2/7/12 - 26/10/12	45	58 year old healthy male - planning on doing multi-day cycling tours in retirement (Oasis Gym)	**Face to Face** - 2 x 1 hr sessions weekly. Initial assessment: body weight, girth measurements, body composition, sub-maximal bike test. Poor aerobic fitness and classified as slightly overweight. Aims: increase fitness, decrease body fat, increase leg and core muscle strength, and improve flexibility. Exercise sessions: Initially involved predominantly aerobic and flexibility activities, progressed to include resistance exercises. Resistance exercises focussed predominantly on thigh strength for cycling and core stability for posture while cycling. Intensity of aerobic and resistance exercise was increased gently to avoid injury. The format of training session was varied on a regular basis and personal challenges were provided to maintain client motivation. On final assessment client's aerobic fitness had improved by 30% and body fat had decreased. (34 hours) **Preparation** - Exercise program writing and reviewing fitness test results (11 hours)	L. Green	L. Green	G. Student

SECTION I –Cardiac/Metabolic Practicum/Work Experience Logbook						
Date	**# of Hours**	**Case Description**	**Description of Services**	**Supervisor**	**Supervisor's Signature**	**Applicant's Signature**
2/3/12	2	Exercise Delivery - 52 yr obese male, smoker (30 pack-years) with coronary artery stent of circumflex artery, previous angioplasty of LAD, hypertension and Type 2 diabetes. On multiple meds, good compliance.	Performed Initial Assessment –took relevant medical and exercise histories, medical and allied health treatments including medication management. Discussed patient exercise capacities, goals, opportunities and barriers for exercise participation. Identified safe exercise limits and effective exercise ranges via RHR, BP, 6-minute walk test with RPE and HR monitor. Performed 30s sit-to-stand, and 30s wall push-up test. Gave patient National Physical Activity Guidelines for reading, and made a follow-up appointment for 1 wks time.	L. Green	L. Green	G. Student
9/4/12 - 11/4/12	1	Exercise Delivery - 52 year old obese female, smoker with hypertension and Type 1 diabetes. Amputation of Left 2nd digit >1 year ago	Performed initial assessment - took relevant medical and exercise histories, and previous medical and allied health treatments. Discussed goals and barriers for exercise. Printed Diabetes and Exercise Information sheet. Sought information from podiatrist re: neuropathy and exercise contraindications. Follow-up appointment – 4 weeks.	B. Edwards	B. Edwards	G. Student
4/6/12-9/11/12	1	Preparation - 58 year old female, non-smoker, diabetes.	Prepare exercise to be prescribed for patient (list exercises, their sets, reps and intensity) during session to directly respond to heart rate and ability.	L. Green	L. Green	G. Student
10/4/12	18	Exercise Delivery - 52 year old obese female, smoker with hypertension and Type 1 diabetes. Amputation of Left Foot, Digit 2 over one-year ago.	Initial assessment on 8/4/12. Provided patient education about diseases. Used motivational interviewing to discuss goals and diabetes management strategies including exercise and footwear (3 hours). Provided exercise prescription with monitoring (BP, ECG, HR, RPP, RPE) over approx 8 weeks in a small group setting. Exercise program began with body weight exercises such as fitball squats and modified push-ups and progressed to light machine and hand weights. Outcome: Increased ADL's, improved aerobic capacity, increased "energy/motivation".	B. Edwards	B. Edwards	G. Student

SECTION I –Musculoskeletal/Neurological/Neuromuscular Practicum/Work Experience Logbook						
Date	**# of Hours**	**Case Description**	**Description of Services**	**Supervisor**	**Supervisor's Signature**	**Applicant's Signature**
2/3/12	2	Exercise Delivery – Mid 40s, female, C-level SCI On multiple medications, good compliance.	Reviewed specialist referral / reports in collaboration with physiotherapist and supervisor. Performed Initial Assessment –took relevant medical and exercise histories, medical and allied health treatments including medication management. Injury occurred 12 months prior, recent surgeries. Discussed patient exercise capacities, goals, opportunities and barriers for exercise participation using CCS cards.	L. Green	L. Green	G. Student
9/4/12 - 11/4/12	1	Preparation - 58 year old female. Recent TIA's. History of T2DM, Hyper-cholesterolemia and overweight.	Research TIA's. Prepare basic questions, and list of suitable assessments to be used to determine mobility, falls risk, and overall risk stratification and exercise ability.	B. Edwards	B. Edwards	G. Student
4/6/12-9/11/12	7.5	Exercise Delivery - 58 year old female. Recent TIA's. History of T2DM, Hypercholesterolemia and overweight. Positive smoking, drinking.	Initial assessment on 9/1/10. Provided patient education about diseases. Used motivational interviewing to discuss goals and lifestyle management including addressing SNAPW. Provided exercise prescription with monitoring (BP, ECG, HR, RPP, RPE) over approx once weekly, for 1.5 hours in a small group setting for four weeks. Outcome: Increased ADL's, improved aerobic capacity, increased "energy/motivation". Continued utilization of the supervised gym (ongoing maintenance program approx 2hrs/wk).	L. Green	L. Green	G. Student
10/4/12	18	Male 32 approx 6 months post knee replacement surgery	Exercise Prescription to stabilise knee through improvement of quads, particularly VM. Stretching program developed and reinforced to improve hamstring length and flexibility. Also targeted weight loss (central adiposity), strengthening of core to relieve lower back pain (group circuits – 6 hrs) and exercise development to meet ADL's around the house specific to his environment and interests (including ergonomic assessment (2 hrs). Aerobic exercise – mainly swimming, rower and cross trainer as tolerated. Outcome: 4 kg weight loss over 6 weeks, improved ROM in affected knee, improved overall mobility and reduction in pain medication.	B. Edwards	B. Edwards	G. Student

SECTION I – Other Clinical Health Delivery Practicum/Work Experience Logbook						
Date	**# of Hours**	**Case Description**	**Description of Services**	**Supervisor**	**Supervisor's Signature**	**Applicant's Signature**
2/3/12	2	Cardiac Stress Test: 15 min appointments Clients with a range of pathologies.	Test purpose – determine cardiovascular function As part of cardiology team, role involves assistance to set-up 12 Lead ECG using stress test protocol as directed by supervising cardiologist.	L. Green	L. Green	G. Student
9/4/12 - 11/4/12	8	60 year old female, in remission from breast cancer	Client is attending 2 x 30 min sessions per week. Sessions focus on upper and lower body strength mainly using compound exercises. Extra care taken with chest exercises, started initial sessions with therabands and graduated to machine weights as the client tolerated additional resistance. Monitored using RPE regularly throughout session. Good compliance and adherence to program. Regular lifestyle advice and encouraged client to start own cardio exercise starting with walks around her block – using the talk test as her gauge and starting with 5 mins. Client now walks for 15 mins 3 x per week and is feeling "good".	B. Edwards	B. Edwards	G. Student
4/6/12-9/11/12	46	40 x job capacity assessments with supervisor.	Supervisor is registered with DEEWR. Assessing individual's ability to perform tasks and duties through a work capacity assessment to assist matching the individual up with suitable employment. JCA's refer people with disabilities and other barriers to work to appropriate employment and support services, and their reports are used for Centrelink decisions about capacity to work. We completed a comprehensive assessment of people's ability to work and participate in programs of assistance including: • identifying barriers to participation, • recommending interventions to help overcome these barriers, • assessing the impact of medical conditions on ability to work, • identifying any employment support requirements, and • direct referral to programs of assistance wherever possible.	L. Green	L. Green	G. Student

APPENDIX 7

Appropriate Practicums for Exercise Science Membership

The following examples suggest areas that can be counted towards the required 140 hours of practicum.

Exercise Delivery for Apparently Healthy Clients

Conduct client assessments
Exercise prescription
Leadership (e.g. client exercise session monitoring and program management)
Exercise plan evaluation

**** If you wish to use your Exercise Science hours for your Accredited Exercise Physiologist application your hours must be completed from this category and they must meet the breakdown of hours required for the AEP application (See 2013 Application Guide page 19).**

Sports Science/ Sports Performance

Coaching – teams and or individuals, from 'grass roots' community levels to elite sports competition
Strength training and conditioning for sport teams, athletes etc.
Physiological assessments and/or athlete profiling (e.g. body composition)
Performance testing and/or talent identification
Biomechanical assessment and analysis
Sports first aid/ sports trainer (for sporting teams/events)
Match/ performance analysis
Sports drug testing (ASADA)/anti-doping
Sports camps – for player/athlete or skill development

Exercise and Sports Science Research

Exercise testing/physiological assessment
Laboratory assistant
Data collection and analysis
Calibration of equipment
Haematology, biochemistry
Drug screening

Note: Participation in a research study as a subject is not considered as an appropriate professional placement experience.

Workplace Health

Health risk appraisal and risk management (e.g. lifestyle management programs)
Recruitment fitness testing and/or training for emergency services (e.g. Fire Brigade or Police Force)
Occupational/workplace injury risk assessment and risk management
Workplace health programs/ corporate fitness
Blood tests/ Anthropometry

The following activities are only suitable to applicants in a stage of their degree where relevant skills and knowledge have already been attained:

Hospital/ Clinical Services

Clinical hospital laboratory: 12 lead ECG, clinical exercise testing (e.g. Bruce/Balke protocol), cardiac catheter lab, lung function testing, and blood tests.