

Aquatic Physiotherapy Group

Level 2 Aquatic Physiotherapy Course 2024

Course Information booklet

LEVEL 2 COURSES

Unit A-Level 2: Applied Physics and Exercise April 8 – 21(online)

Unit B-Level 2: Applied Physiology April 29 – May 12 (online)

Unit C-Level 2: Clinical Reasoning May 21 – June 2 (online)

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1. COURSE OVERVIEW, AIM & OBJECTIVES

Level 2 courses represent a higher level of aquatic physiotherapy practice for those interested in extending their knowledge and skills. Each Unit represents approximately 8 hours work and involves readings, webchats and an assignment with feedback. All the material can be downloaded from cpd4physios, and a set time over a few days is scheduled for making a contribution to a webchat.

LEVEL 2

Unit A-Applied Physics and Exercise

Content

Hydrostatics and Hydrodynamics and clinical implications

- Properties of water
- Buoyancy and metacentre
- Drag, viscosity and turbulence

Body Balance including sagittal, transverse and longitudinal rotation

Functional loading in water – walking, hopping and running

Planning exercises and clinical programs

Learning Outcomes

1. Develop, monitor and progress an Aquatic Physiotherapy program to perform in a skilful and safe manner; competently and efficiently integrating and modifying aquatic physiotherapy interventions

Competently and efficiently conduct a range of interventions for an individual or a group in their area of practice. Monitor the effect of interventions, demonstrating timely modifications. Recognise uncertainty and the need for assistance or referral in situations that are complex or unusual to the physiotherapist.

- evaluating and demonstrating the use of buoyancy, centre of buoyancy and metacentre
- evaluating and demonstrating the use of drag
- evaluating and demonstrating the use of body balance and control of rotation in water
- evaluate the integration of buoyancy, drag and body balance

2. Critically evaluate and integrate evidence of exercise and functional loading in water based on physics principles on own practice to maximise clinical outcomes.

Unit B-Applied Physiology

Content

Immersion effects on

- Cardiovascular system
- Respiratory system
- Haematological indices
- Renal function
- Neuroendocrine activity

Immersion and exercise

- Thermoregulatory concerns
- The exercise prescription

Learning Outcomes

On completion of this unit participants are expected to:

1. Demonstrate critical understanding of the physiological effects of immersion on the human body in health and disease.
2. Relate the physiological changes associated with immersion to rationalise current precautions and use strategies to complete comprehensive client screening prior to initiation of aquatic physiotherapy to mitigate risk
3. Evaluate the physiological impact of immersion on responses to exercise.
4. Appraise knowledge and understanding of immersion physiology in treatment planning and monitoring over a wide range of conditions, including clients with multiple co-morbidities to improve policy and procedures or client education (including relevant research)

Unit C-Clinical reasoning

Content

What is clinical reasoning? Context, definition, goals and features of clinical reasoning

An integrated patient-centred model of clinical reasoning

Application of clinical reasoning to Aquatic Physiotherapy

Improving clinical reasoning and meta-cognition skills

Practice of clinical reasoning in Aquatic Physiotherapy including:

- Physics
- Physiology of immersion
- EBP
- The use of objective measures
- Technique and exercise selection

Learning outcomes

1. Understand the role of cognition, knowledge and metacognition in the development of sound clinical reasoning skills
2. Plan appropriate methods to continually expand your knowledge
3. Understand the role of clinical reasoning, evidence based practice and clinical justification in autonomous professional health care practice
4. Integrate new knowledge including physics and physiology in aquatic physiotherapy clinical reasoning
5. Evaluate your own knowledge acquisition and cognitive styles and challenge these with case studies, mind mapping and other techniques

2. COURSE STRUCTURE AND CONTENTS

ONLINE UNITS have been developed by Australian and International Physiotherapists and biophysicists

LEVEL 2

The first three online units are completed as Level 2 units and application to these courses is done separately via the APA.

Unit A- Applied Physics – Hydrostatics and hydrodynamic principles and clinical applications

Unit B- Applied Physiology – Immersion and clinical applications

Unit C- Clinical Reasoning – In aquatic physiotherapy

These are done entirely online. You will be given access to cpd4 physios (online platform) upon approval of your Prior Learning application. You will be required to contribute to a web-based discussion and submit a short assignment.

Unit A must be completed prior to Unit B. Unit A and B must be completed prior to Unit C. You can enroll in one or two or all three of these courses.

If you want to do the Level 3 course then you must enroll in all three courses (Units A, B and C are prerequisites for Level 3)

Online Unit	Timing	Reading/learning time (approximate guide only, will vary depending on amount of experience or study in each area)
Level 2 Unit A-Applied Physics and Exercise	April 8 - 21	8 hours
Level 2 Unit B-Applied Physiology	April 29 – May 12	8 hours
Level 2 Unit C-Clinical Reasoning	May 21 – June 2	8 hours

There is some flexibility on timing for any participants that are overseas or on holidays during this time to complete a unit earlier or later than is scheduled (please get in touch if you would like to discuss this further)

All information and resources will be provided via cpd4physios

This will include:

- Pre-reading and reference lists
- Self-learning guides/activities
- Feedback for the activities

3. TEACHING STRATEGIES

LEVEL 2 – readings, case studies, web-based forum, webinar check-ins and feedback on your assignment.

Each of the workbook activities or questions also contains feedback sheets. The online units have been compiled by International and Australian Physiotherapists with specific expertise. During each Distance Learning (online) Unit there will be a web-based discussion to follow up on any issues from the unit.

4. ASSESSMENT

Online units

Short answer activities for Distance Learning (online) Units (feedback sheets provided). Additional case study type assignment. Finishing the activities and participation in a web-based discussion indicates successful completion of the course.

5. SELECTION CRITERIA

- Degree or equivalent qualification in physiotherapy recognised by the Physiotherapists Registration Board of Victoria Australia
- Physiotherapists with a minimum 18 months of postgraduate clinical experience and preferably whose current employment requires aquatic physiotherapy skills
- Completion of a foundation level aquatic physiotherapy course (for example, at least Part A and Part B of APA Aquatic Physiotherapy Level 1)
- A Prior Learning form needs to be completed (prior to being able to register), related to past professional development and aquatic physiotherapy education

6. FEEDBACK FROM PARTICIPANTS

Participants in units in 2020 describe the impact on their clinical practice in the following ways

“In the past I had predominately just copied land exercises in water which caused me to have difficulty when trying to progress exercises. Having now got a greater understanding of buoyancy, drag and the other hydrostatic and hydrodynamic effects of

immersion I feel I am better able progress exercises and to make better use of the aquatic environment I have access to”

“This unit has made me consider what type of patient populations would benefit from aquatic physiotherapy (more than I initially thought!). It provides a different mode of exercise with its own specific principles which could be really beneficial and exciting for some patients”

“I felt I already had a good grasp of the physiological principles of hydro but this unit has highlighted some weaknesses in my knowledge and challenged parts of my practice. I feel like I will be providing a much more evidence-based approach for the future”

“I have more scope in progressions of exercise.... I hope to be more effective in my sessions and better able to fine tune exercises to the right level for my clients.”

7. COURSE FEE

LEVEL 2 (per unit)

APA Aquatic Group rate:	\$271 per unit
APA Member rate	\$331 per unit
Overseas rate	\$371 per unit
Non-member rate	\$496 per unit

8. CANCELLATION

The Australian Physiotherapy Association reserves the right to cancel the course if a minimum number of applications are not reached. If this occurs, the total course fee will be reimbursed.

[APA Professional Development Terms and Conditions](#)

9. APPLICATION

You will be advised to register upon approval of your Prior Learning application.

Further enquiries for the course, please contact Sophie who is happy to take any questions about the content of the course.

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10. SOME FURTHER INFORMATION ON THE LEVEL 3 COURSE

The Level 2 online courses are a pre-requisite for the Level 3 course.

Aquatic Physiotherapy Level 3 represents the pinnacle of teaching and has been the best option for Senior Physiotherapists managing aquatic physiotherapy services both in the public and private sector and for Physiotherapists managing people with complex conditions in aquatic rehabilitation. The course is an intensive ten-day program, conducted at the state-of-the-art Hydrotherapy Pool at Austin Health in Melbourne. The course provides the skills necessary for advanced clinical practice. Many participants have also published research connected to the completion of the course.

Expressions of interest for the Level 3 course in October 2024 in Melbourne will be called for in May.

Level 3 starts in August/September with two online units prior to the face to face sessions.

UNIT D: EVIDENCE BASED PRACTICE AND RESEARCH – 20-40 HOURS

THIS IS THE START OF YOUR RESEARCH PROJECT WHICH WILL CONTINUE UNTIL NOVEMBER 2024.

UNIT E: POOL
MANAGEMENT - 4-8 hours

OVERARCHING LEARNING OUTCOMES FOR THE LEVEL 3 COURSE:

CLINICAL REASONING AND COMPLEX CLIENT MANAGEMENT

1. a. Have a thorough knowledge and understanding of the hydrostatic and hydrodynamic principles relevant to immersion of a body in water
b. Be able to evaluate the use of body balance and control of rotation in water to develop, monitor and progress an Aquatic Physiotherapy program for complex clients
2. a. Be able to relate the physiological changes associated with immersion to rationalise current precautions and complete comprehensive client screening prior to initiation of aquatic physiotherapy
b. Apply knowledge and understanding of immersion physiology in treatment planning and monitoring over a wide range of patient conditions, including complex clients with multiple co-morbidities.
3. Have a comprehensive and advanced level of clinical reasoning in Aquatic Physiotherapy to manage and provide advice on the care of complex clients. Be able to understand the principles of a range of aquatic techniques and modify techniques and exercises to provide an integrated aquatic physiotherapy treatment plan for complex clients

EVIDENCE BASED PRACTICE, RESEARCH AND PROFESSIONAL DEVELOPMENT

1. Be up to date with Aquatic Physiotherapy Evidence Based Practice
2. Understand the role of clinical reasoning, evidence based practice and clinical justification in autonomous professional health care practice with complex clients
3. Demonstrate understanding of effective literature searching, review and critical appraisal and the role of quality improvement and research in advancing practice in aquatic physiotherapy effectiveness
4. Lead and develop educational materials and opportunities, mentoring other staff

LEADERSHIP

Show leadership in leading and developing aquatic physiotherapy services, professional development, service delivery and clinical practice

SERVICE DELIVERY, RISK MANAGEMENT AND QUALITY IMPROVEMENT

1. Have knowledge of design principles relating to hydrotherapy pools and appropriate facilities in relation to specific population needs to manage risk
2. Be competent in maintenance of water purification; have a working knowledge of pool plant and equipment and the ability to monitor its function
3. Using Health and Safety legislation, the Australian Physiotherapy Association Standards and other appropriate standards and guidelines to be able to review and develop policies and procedures for your Aquatic Physiotherapy service in relation to developing the strategies to run an efficient and cost-effective service